

Dell™ XFR D630

Fully Rugged Notebook

Service Manual

Notes, Notices, and Cautions



NOTE: A NOTE indicates important information that helps you make better use of your computer.



NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

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1 Before You Begin

This chapter provides procedures for removing and installing the components in your computer. Unless otherwise noted, each procedure assumes that the following:


- You have performed the steps in [Turning Off Your Computer](#) and [Before Working Inside Your Computer](#).
- You have read the safety information in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.
- A component can be replaced by performing the removal procedure in reverse order.

1.1 Recommended Tools

The procedures in this document may require the following tools:

- Small flat-blade screwdriver
- Phillips screwdriver
- Small plastic scribe
- 5-mm hex nut driver
- Flash BIOS-update program CD
- Processor extraction tool
- Torque driver capable of up to 1.5 inches/pound
- Display grommet tool (used when replacing the [Display Assembly](#) or the [Display Top Cover Assembly](#))

1.2 Turning Off Your Computer

 **NOTICE:** To avoid losing data, save and close any open files and exit any open programs before you turn off your computer.


1. Shut down the operating system:
 - a. Save and close any open files, exit any open programs
 - b. Click **Start**→ **Shut Down**→ **Shut down**.


The computer turns off after the operating system shutdown process finishes.


2. Ensure that the computer and any attached devices are turned off. If your computer and attached devices do not automatically turn off when you shut down your operating system, press and hold the power button for 4 seconds.


1.3 Before Working Inside Your Computer

Use the following safety guidelines to help protect your computer from potential damage and to help ensure your own personal safety.

 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **CAUTION:** Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges or by its metal mounting bracket. Hold a component such as a processor by its edges, not by its pins.

 **NOTICE:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell is not covered by your warranty.

 **NOTICE:** When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable

itself. Some cables have a connector with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

➡ **NOTICE:** To avoid damaging the computer, perform the following steps before you begin working inside the computer.

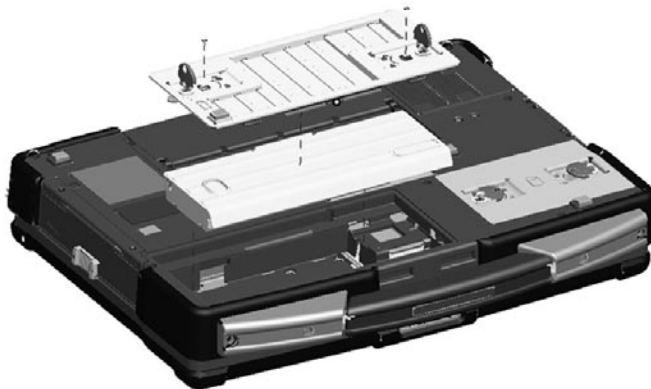
1. Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.
2. Turn off your computer (see [Turning Off Your Computer](#)).

➡ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network device.

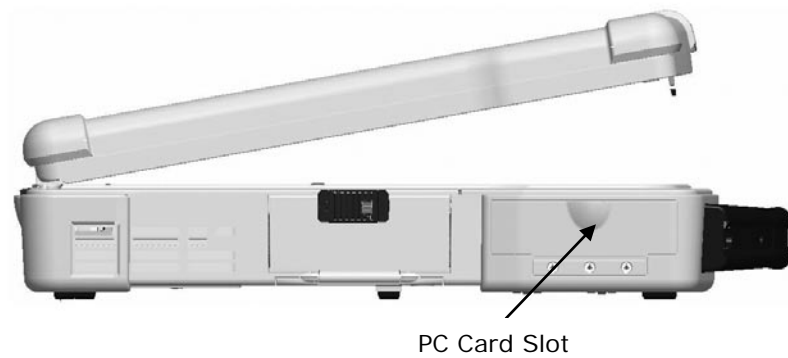
3. Disconnect any telephone, network. And USB cables from the computer.
4. Disconnect your computer and all attached devices from their electrical outlets.
5. Turn over the computer.

➡ **NOTICE:** To avoid damaging the system board, you must remove the main battery before you service the computer.

6. Remove the battery.



- a. If the 2 screws that secure the quarter-turn latches are installed, remove the 2 screws on the latches on the battery compartment using a #1 Philips screw driver. See the figure above for the location of the battery compartment. If the 2 security screws are not installed, proceed to **step b**.
 - b. Lift each latch and turn each a quarter-turn, toward the 'unlock' icon, to release the latching mechanism. Remove the compartment cover from the computer.
 - c. To remove the battery from the compartment, utilize the tab on the battery to assist in lifting the battery from the compartment.
7. Press the power button to ground the system board.
 8. Remove any PC Card or ExpressCard, if installed, from the PC Card slot.
 - a. The PC Card slot is located on the left, front side of the notebook.
 - b. To access the PC Card or ExpressCard, lower the protective door.







- c. Remove the PC Card or Express Card.
- d. Then close the protective door.

1.4 Screw Chart

SCREW IMAGE	PART NUMBER	DESCRIPTION	Qty/Assy	Total Qty
	18114	SHOULDER SCREW M2.5		6
	18815	XFR LCD ASSY TOUCH SCREEN	6	
	18279	CHEESE HEAD SCREW M1.2 X 3		3
	18806	AV DOOR ASSY	1	
	18808	VGA DOOR ASSY	1	
	18812	DVD DOOR ASSY	1	
	18353	SHOULDER SCREW-HEAT SPREADER		3
	18035	HEAT SINK ASSY	3	
	18415	PAN HEAD SCREW M2.5 X 8 -BLACK		19

	18815	XFR LCD ASSY TOUCH SCREEN	4	
	18802	PALMREST ASSY	11	
	18043	ASSY HANDLE WITH HOLDER	2	
	18619	LCD LATCH ASSY	2	
	18416	SCR,M3X14,PHH,MSCR,ZPS,XFR		8
	18044	ASSY HANDLE	6	
	18824	SHOULDER STRAP ASSY	2	
	18417	PAN HEAD SCREW M2 X 12 -BLACK		7
	18815	XFR LCD ASSY TOUCH SCREEN	7	
	18419	PAN HEAD SCREW M2.5 X 4 -BLACK		12
	18810	HDD DOOR ASSY	4	
	18813	RJ DOOR ASSY	3	
	18814	USB PLASTIC DOOR ASSY	1	
	18034	FAN ASSY	3	
	9999-8024	PCMCIA HOLDER	1	
	18420	PAN HEAD SCREW M2.5 X 14 -BLACK		1
	18802	PALMREST ASSY	1	
	18423	CSK SCREW M2 X 5 -BLACK		22

	18806	AV DOOR ASSY	4	
	18810	HDD DOOR ASSY	2	
	18804	FAN COVER	4	
	18807	BATTERY DOOR ASSY	2	
	18811	DOCKING DOOR ASSY	6	
	18623	KEYBOARD ASSY	4	
	18424	CSK SCREW M3 X 10 -BLACK		4
	18043	ASSY HANDLE WITH HOLDER	4	
	18425	CSK SCREW M2 X 10 -BLACK		4
	18043	ASSY HANDLE WITH HOLDER	2	
	18044	ASSY HANDLE	2	
	18426	CSK SCREW M2 X 3 -BLACK		10
	18806	AV DOOR ASSY	2	
	18808	VGA DOOR ASSY	2	
	18812	DVD DOOR ASSY	2	
	18802	PALMREST ASSY	2	
	18618	AV DOOR COVER ASSY	2	
	18427	CSK SCREW M2.5 X 6 -BLACK		3

	18808	VGA DOOR ASSY	1	
	18812	DVD DOOR ASSY	2	
	18428	CSK SCREW M2 X 8 -BLACK		10
	18815	XFR LCD ASSY TOUCH SCREEN	2	
	18808	VGA DOOR ASSY	2	
	18802	PALMREST ASSY	2	
	18813	RJ DOOR ASSY	2	
	18814	USB PLASTIC DOOR ASSY	2	
	18429	CSK SCREW M2 X 6 -BLACK		30
	18810	HDD DOOR ASSY	2	
	18807	BATTERY DOOR ASSY	2	
	18630	USB SIDE DOOR ASSY	2	
	18809	DIMMS DOOR ASSY	4	
	18631	POWER DOOR ASSY	2	
	18632	PCMCIA DOOR ASSY	3	
	18628	RUBBER KEYBOARD ASSY	15	
	18444	SCR,M2.5X5,PHH,TF,BCS		10
	18815	XFR LCD ASSY TOUCH SCREEN	6	
	18803	MOTHERBOARD TO CHASSIS	4	

	18451	PAN HEAD SCREW M2 X 8-BLACK		1
	18802	PALMREST ASSY	1	
	18477	PANHEAD SCREW M2X4		9
	18802	PALMREST ASSY	1	
	18043	ASSY HANDLE WITH HOLDER	4	
	18803	RF PASS THROUGH	2	
	18819	LCD TOP COVER ASSY	2	
	18517	SCR,M3X6,PHH,MSCR,ZPS,XFR		2
	18044	ASSY HANDLE	2	
	18535	CSK CAPTIVE SCREW M2 X 6		19
	18623	KEYBOARD ASSY	15	
	18816	HINGE COVER ASSY	4	
	18539	PAN HEAD SCREW M3 X 14 -BLACK		1
	18629	STYLUS KIT ASSY	1	
	18550	PAN HEAD SCREW M3 X 22 -BLACK		2
	18824	SHOULDER STRAP ASSY	2	
	18590	SCREW,KYBD BLK, PAN HEAD M2X3		19

	18815	XFR LCD ASSY TOUCH SCREEN	8	
	18802	PALMREST ASSY	2	
	18803	CARD CAGE ON BASE CHASSIS	4	
	18623	KEYBOARD ASSY	3	
	18823	MOTHERBOARD ASSY	2	
	18591	PAN HEAD SCREW M2.5X8		2
	18802	PALMREST ASSY	2	
	18634	JACK SCREW FOR VGA PORT COVER		4
	18617	VGA SUPPORT ASSY	4	
	18642	CSK SCREW M2 X 6.6		4
	18802	PALMREST ASSY	4	
	18671	PAN HEAD CAPTIVE SCREW-DVD M2 X 12		1
	18804	CHASSIS GASKET ASSY	1	

2 XBay Devices

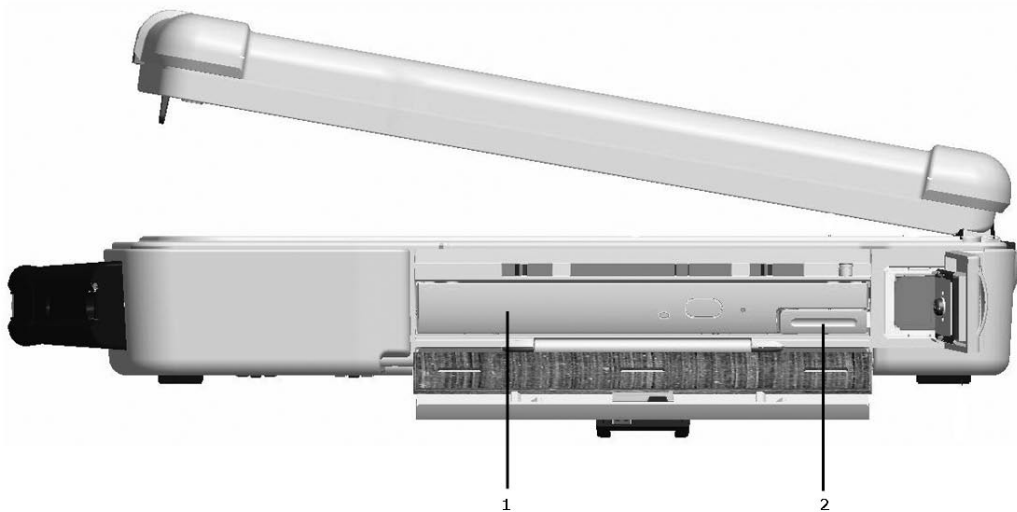


NOTICE: To prevent damage to devices, store them in a safe, dry place when they are not installed in the computer. Avoid pressing down on them or placing heavy objects on top of them.



NOTE: If the device locking screw is not present, you can remove and install devices while the computer is running and connected to a docking device (docked).

1. If present, remove the device locking screw from the bottom of the computer.
2. If the computer is running, double-click the **Safely Remove Hardware** icon on the taskbar, click the device you want to eject, and click **Stop**.
3. Press the device latch release.



1	Optical drive	2	Device Latch release
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4. Pull the device out of the XBay.

To install a device, push the new device into the XBay until it clicks into place.

3 Hard Drive

CAUTION: If you remove the hard drive from the computer when the drive is hot, *do not touch* the metal housing of the hard drive.

CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To prevent data loss, turn off your computer before removing the hard drive. Do not remove the hard drive while the computer is on, in standby mode, or in hibernate mode.

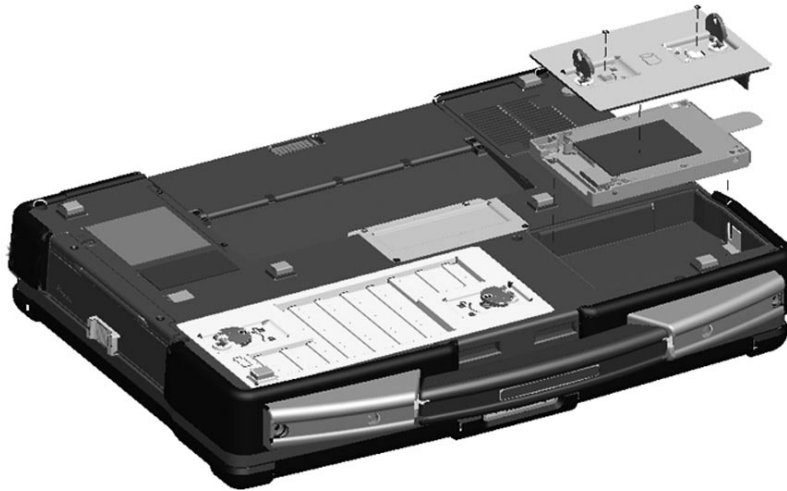
NOTICE: Hard drives are extremely fragile; even a slight bump can damage the drive.

NOTE: Dell does not guarantee compatibility or provide support for hard drives from sources other than Dell.

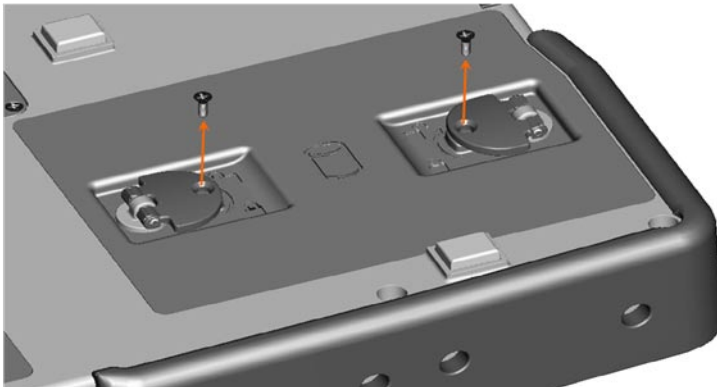
NOTE: You need the Operating System media to install the Microsoft® Windows® operating system. You also need the Drivers and Utilities media for your computer to install the drivers and utilities on the new hard drive.

To replace the hard drive in the hard disk drive compartment:

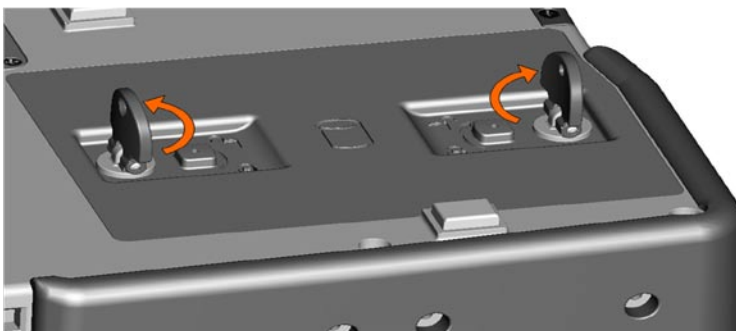
1. Follow the procedures in [Before You Begin](#).
2. Turn the computer over and locate the hard disk drive compartment using the figure below.



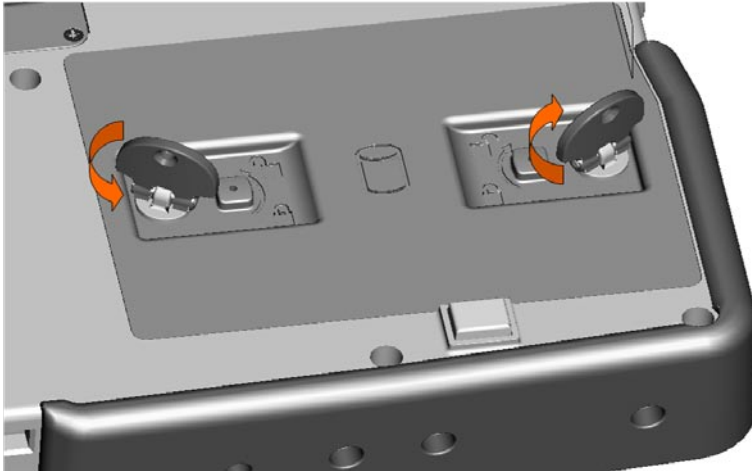
3. If the 2 optional screws that secure the quarter-turn latches are installed, remove the 2 screws on the latches on the hard disk drive compartment using a #1 Phillips screw driver. If the 2 security screws are not installed, proceed to **step 4**.



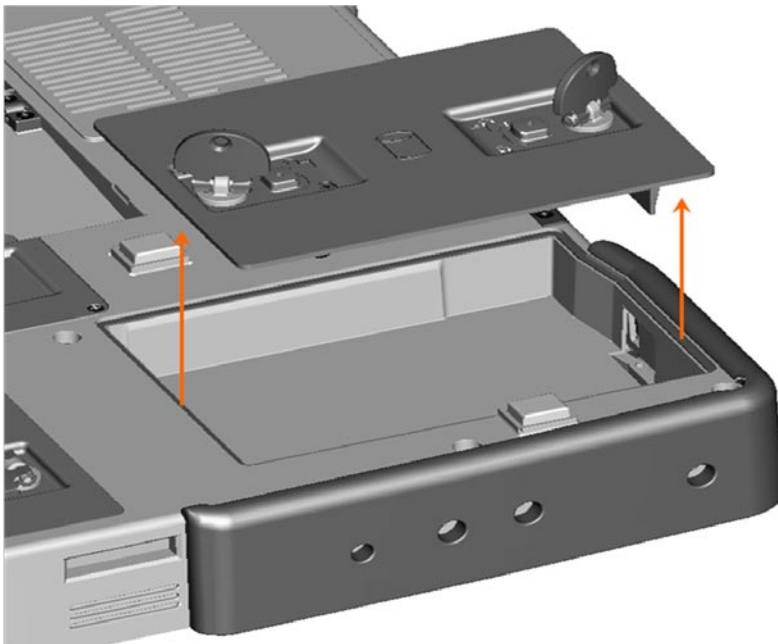
4. Lift each latch,



and turn each a quarter-turn, towards the 'unlock' icon, to release the latching mechanism.



5. Remove the compartment cover from the computer.



6. Locate the tab on the hard disk drive and pull it back to disconnect the hard disk drive from the motherboard.
7. Continue to utilize the tab to assist in removing the hard disk drive from the compartment.

➡ **NOTICE:** When the hard drive is not in the computer, store it in protective antistatic packaging.


8. Remove the new drive from its packaging.

Save the original packaging for storing or shipping the hard drive.

➡ **NOTICE:** Use firm and even pressure to slide the drive into place. If you use excessive force, you may damage the connector.

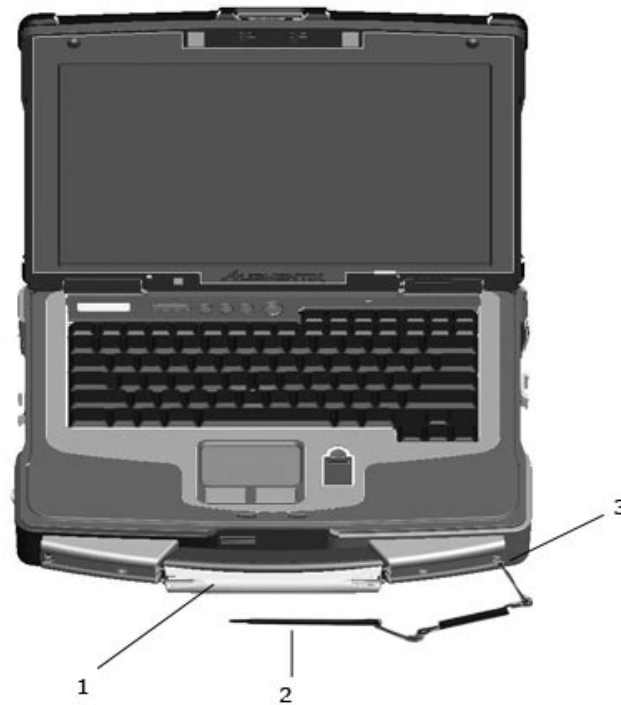
9. Slide the hard drive into the bay until it is fully seated.
10. Replace and secure the hard disk drive compartment cover with the quarter-turn latches.
11. Use the *Operating System* CD to install the operating system for your computer (see the *XFR D630 User's Guide* for information).
12. Use the *Drivers and Utilities* CD to install the drivers and utilities for your computer (see the *XFR D630 User's Guide* for information).

4 Stylus, Tether and Clip (DirectVue Touch Screen Display option)


 **NOTE:** Only Touch Screen Display configurations will include the stylus, stylus housing, tether and stylus clip. The Touch Screen Display is an optional feature.

If your XFR D630 is configured with the DirectVue Touch Screen Display, it will also be equipped with the optional stylus housing, stylus, stylus tether, and stylus clip.

To replace the stylus, stylus tether or stylus clip, follow the directions provided in the sections below.



1	Stylus housing	2	Stylus and stylus tether	3	Stylus clip (for connection to the notebook)
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 **NOTE:** The stylus clip can be installed on either the left or right side of the handle to allow for right or left-handed use.

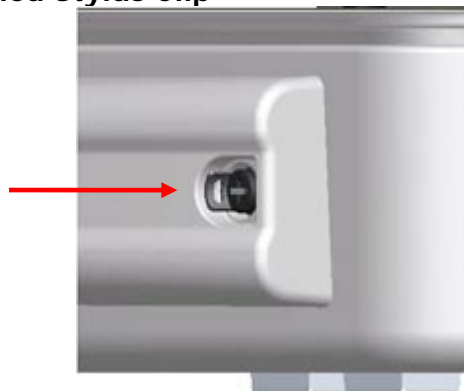
4.1 Replacing the Stylus Clip

The stylus clip is installed on the handle assembly's end screw on the left or right side of the notebook. The stylus clip provides an eyelet into which the stylus tether can be routed to attach the stylus and stylus tether to the notebook.



1	Handle cover	2	Stylus clip	3	Screw
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Close Up View of Installed Stylus Clip





CAUTION: Care is needed when installing this clip. The clip is installed with the raised part towards the center of the notebook so that the raised part of the clip is within the recessed area of the handle cover. If the clip is installed the opposite way, this raised metal part of the clip is now above the handle cover housing, and you can easily cut or injure yourself.

To replace the stylus clip:

1. Loosen the screw on the end of the handle cover that secures the stylus clip. Note that the stylus clip can be installed on the end of either handle cover to allow for right or left-handed use.
2. Slide the old stylus clip from beneath the loosened screw.
3. Slide the new stylus clip between the handle cover and the screw.

4. Tighten the screw, ensuring the screw head secures the stylus clip in place.

 **NOTE:** If you relocate the stylus from one side of the handle to the other, remember to tighten the screw that was loosened in **step 1**.

 **NOTE:** The stylus clip can be installed on either the left or right side of the handle to allow for right or left-handed use.

4.2 Replacing the Stylus



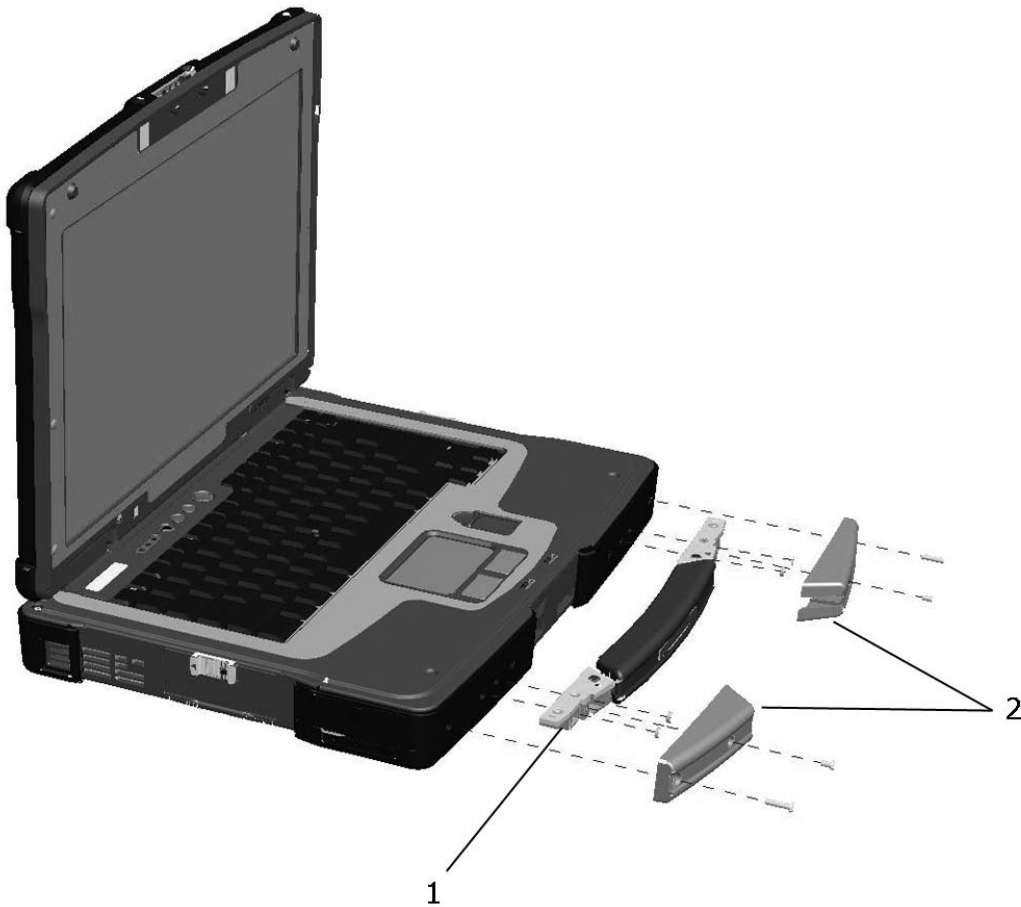
1	Stylus	2	Stylus tether (with loops on each end)
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To replace the stylus:

1. Remove the tether and stylus from the stylus clip:
 - a. At the stylus clip, loosen the looped end of the tether.
 - b. Pull the stylus and tether through the loop until the tether is free from the stylus clip.
2. Remove the stylus from the tether:
 - a. At the stylus, loosen the looped end of the tether.
 - b. Pull the stylus and tether through the loop until the stylus is free from the tether.
3. Install the new stylus:
 - a. Place one of the looped ends of the tether through the hole in the end of the new stylus and then place the free end of the tether through the loop.
 - b. Pull the remainder of the tether through the loop until tight.
 - c. Your new stylus is now attached to the tether.
4. Attach the stylus and tether to the stylus clip:
 - a. Place the free end of the tether through the stylus clip.
 - b. Pull the stylus and tether through the loop until tight.

5 Handle

The XFR D630 is equipped with a factory installed handle. This section provides instructions for removing and installing the handle if replacement is required.



1	Main handle assembly	2	Handle cover (2)
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5.1 Removing the Handle

1. Remove the 4 screws (2 on each handle cover) that secure the handle covers as shown in the figure above.
2. Remove the 6 screws (3 on each side) on the top of the handle assembly that secure the handle to the handle brackets.
3. Remove the 6 screws (3 on each side) that secure the main handle assembly.

5.2 Installing the Handle

1. Align the main handle assembly with the mounting holes in the front plate of the XFR D630 as shown in the figure above.
2. Secure the main handle assembly to the XFR D630 using the 6 screws provided.
3. Install the 6 screws (3 on each side) on the top of the handle assembly that secure the handle to the handle brackets.

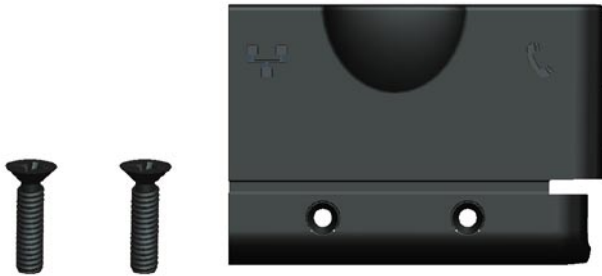
4. Align each of the handle covers over the main handle assembly ends as shown.
5. If your XFR D630 is equipped with the optional Touch Screen, please refer to [Replacing the Stylus Clip](#) for instructions regarding installing the stylus clip onto one side of the handle assembly.
6. Secure the handle covers over the main handle assembly and to the XFR D630 with the 4 screws provided (2 on each side).

6 Port Covers

The XFR D630 utilizes port covers to secure and protect the connectors and devices of the notebook.

6.1 Comms Door

The Comms Door is located on the notebook's rear panel and protects the RJ-45 and RJ-11 connectors.

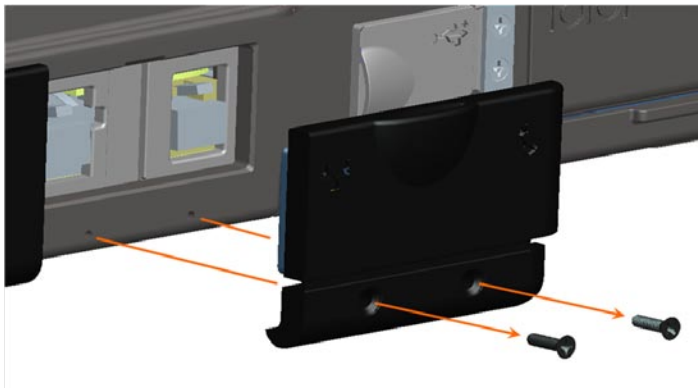


6.1.1 Removing the Comms Door

1. Remove the 2 screws that secure the Comms Door.

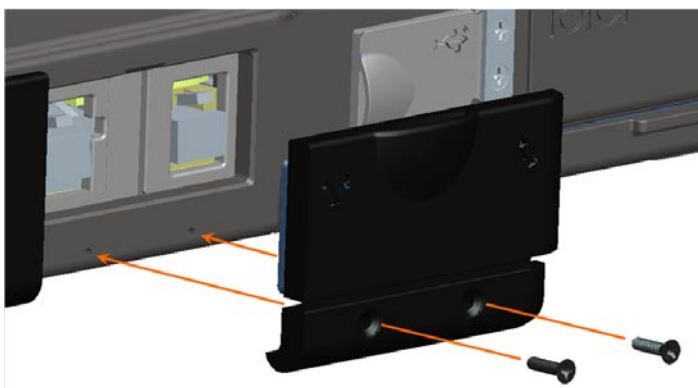


2. Remove the Comms Door from the notebook.



6.1.2 Installing the Comms Door

1. Align the Comms Door with the Comms Door mounting holes on the notebook.



2. Use the 2 screws to secure the Comms Door to the notebook.

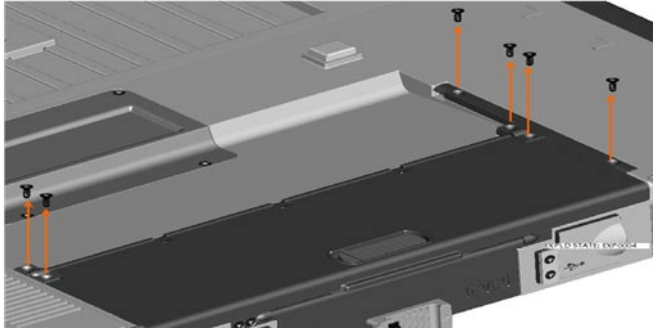
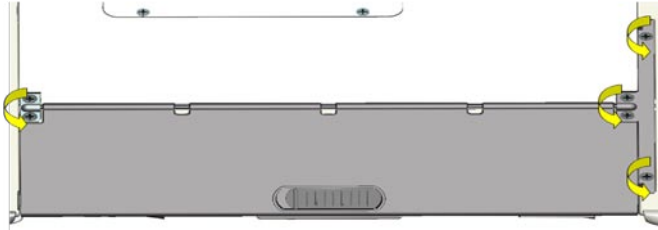


6.2 Docking Door

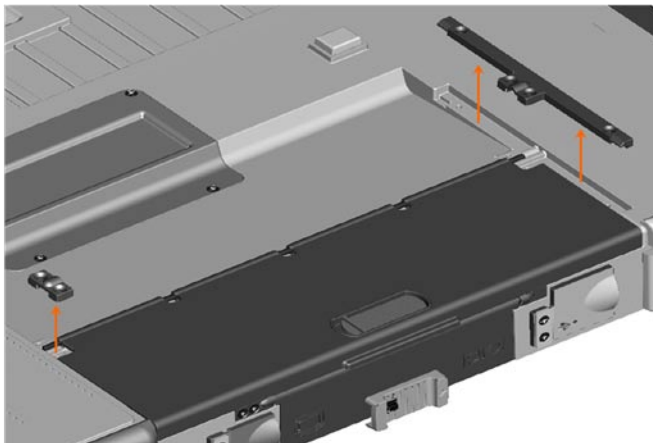
The Docking Door is located on the bottom of the notebook, and protects the docking connector.

6.2.1 Removing the Docking Door

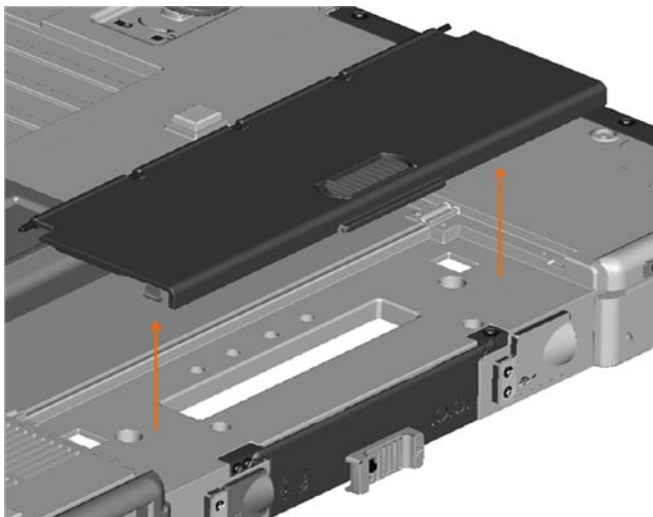
1. Remove the 6 screws that secure the Docking Door to the notebook.



2. Remove the 2 brackets that secure the Docking Door.

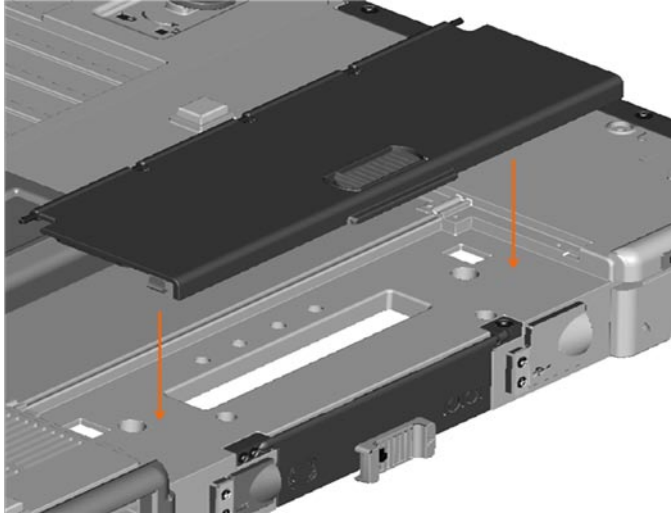


3. Lift the Docking Door away from the notebook.

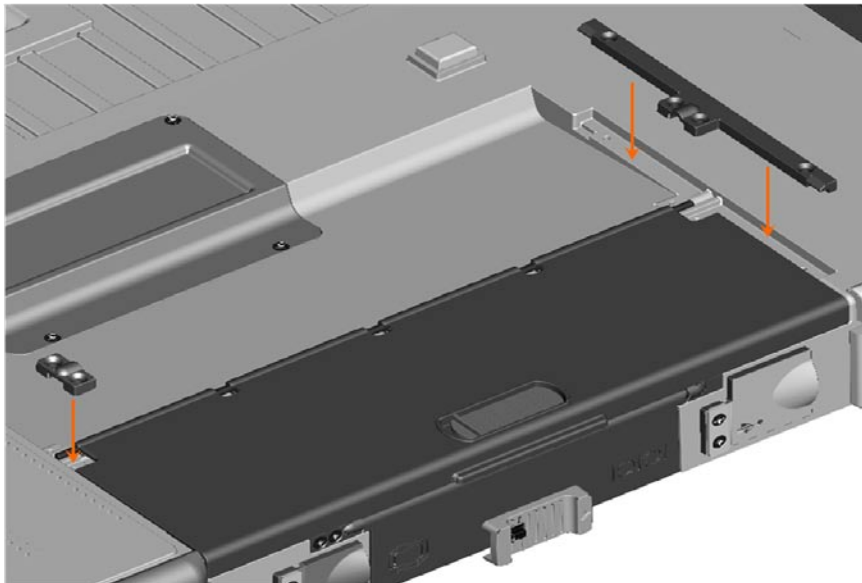


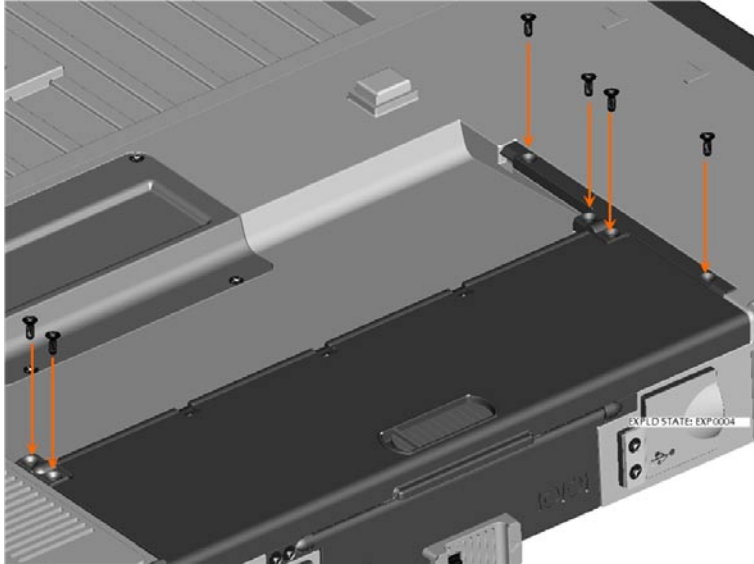
6.2.2 Installing the Docking Door

1. Place the Docking Door onto the notebook aligning it with the 6 mounting holes.

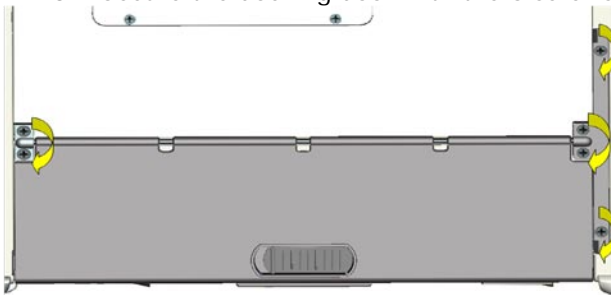


2. Place the two mounting brackets onto the docking door (see figure below).





3. Secure the docking door with the 6 screws provided.



6.3 VGA Door

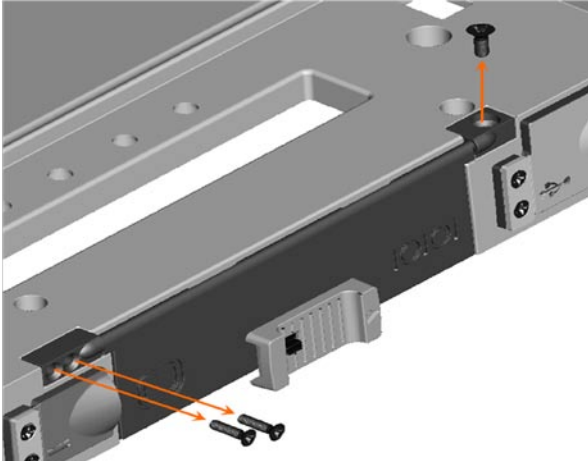
The VGA Door is located on the rear panel of the notebook, and protects the serial and video connectors.

6.3.1 Removing the VGA Door

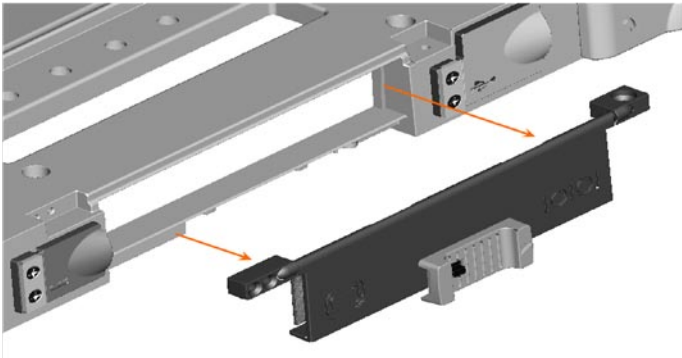
NOTE: The VGA Door is secured by 3 screws. To access all the screws the notebook must be turned over. When facing the VGA Door, the right screw is accessed from the top, and the 2 left screws are accessed from the front.

1. Turn the notebook top side down, to access the VGA Door on the rear panel of the notebook.
2. Remove the 3 screws that secure the VGA Door (one screw on the top right, the other 2 on the front left).

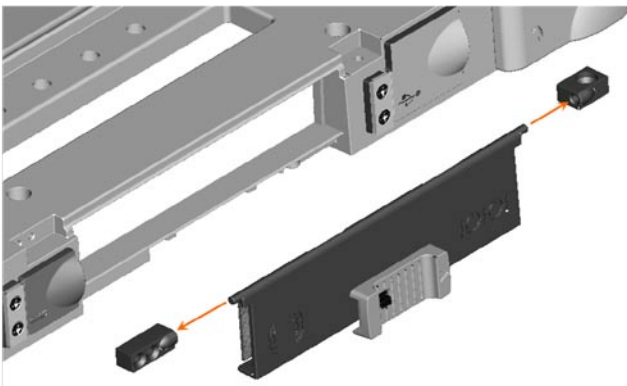




3. Remove the VGA Door from the notebook.



4. Remove the 2 screw mounts from the VGA Door hinge and set aside for later use.

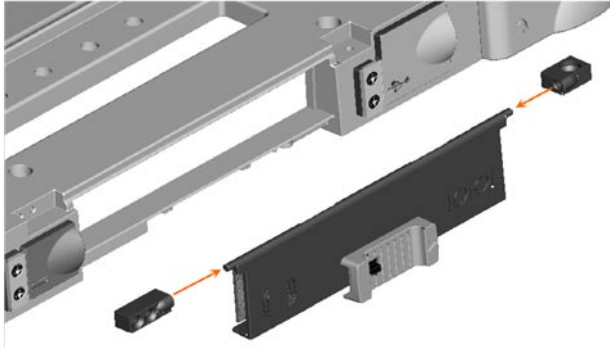


6.3.2 Installing the VGA Door

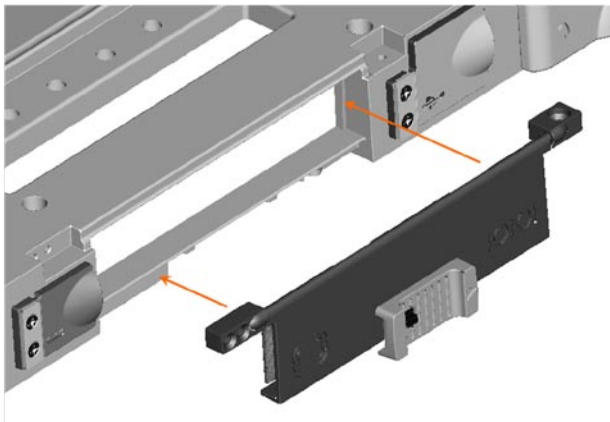
1. Place the 2 screw mounts on the VGA Door hinge.



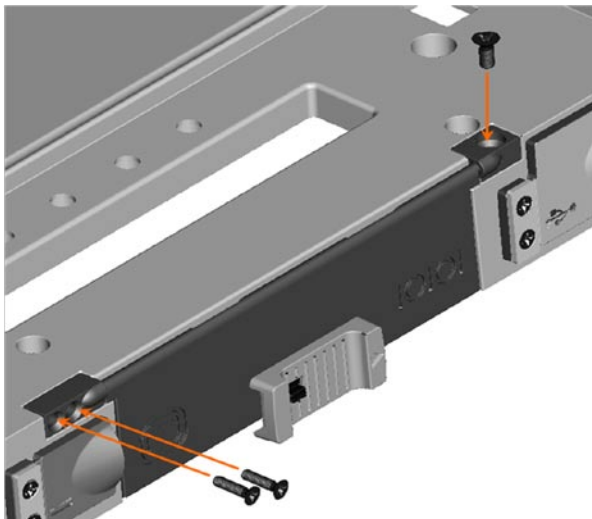
NOTE: Be careful to ensure that the single screw mount is placed on the right side of the hinge, while the 2 screw mount is placed on the left side of the hinge.



2. Place the VGA Door and screw mounts onto the notebook and align with the mounting holes provided.



3. Secure the VGA Door to the notebook, using the 3 screws provided.



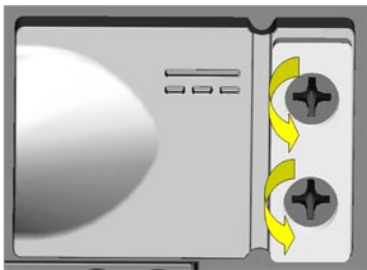


6.4 Power Door

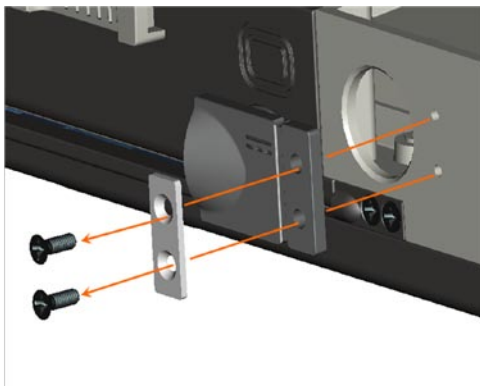
The Power Door is located on the rear panel of the notebook, and protects the notebook's power connector.

6.4.1 Removing the Power Door

1. Remove the 2 screws that secure the Power Door to the notebook.

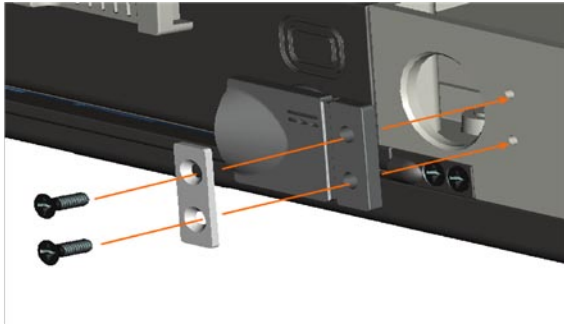


2. Remove the screw plate and the Power Door from the notebook.

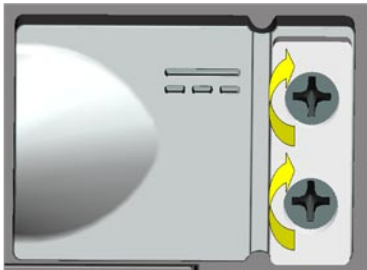


6.4.2 Installing the Power Door

1. Align the Power Door and the screw plate with the screw holes provided on the rear panel for the Power Door.



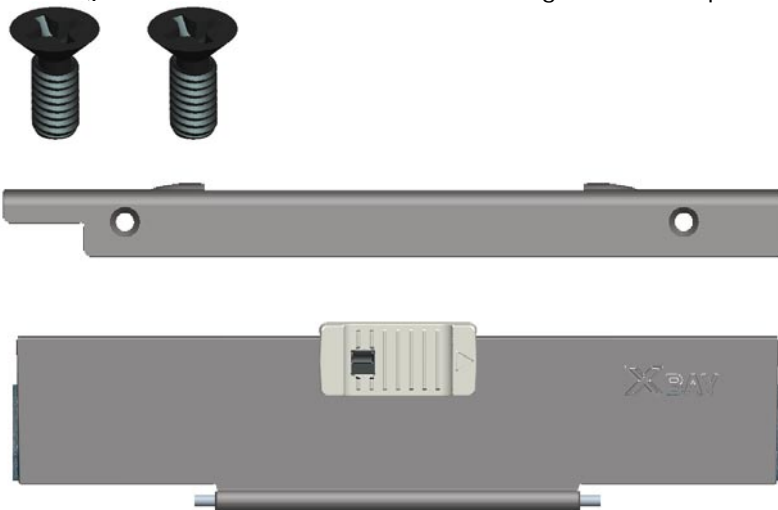
2. Use the 2 screws provided to secure the screw plate and Power Door to the notebook.



6.5 XBay Door

6.5.1 Removing the XBay Door

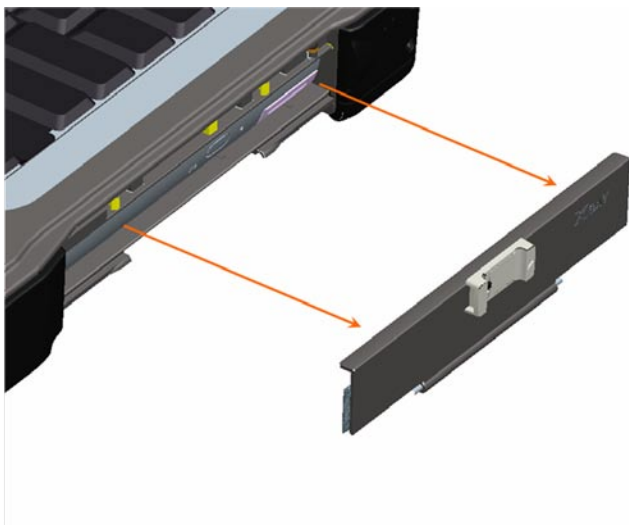
The XBay Door is located on the notebook's right side, and protects the notebook's optical drive.



1. Turn the notebook top side down, and remove the 2 screws that secure the XBay Door.

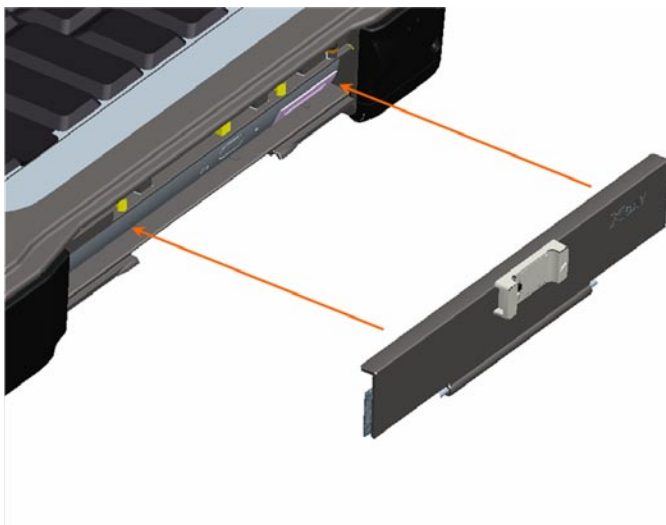


2. Remove the XBay Door from the notebook.

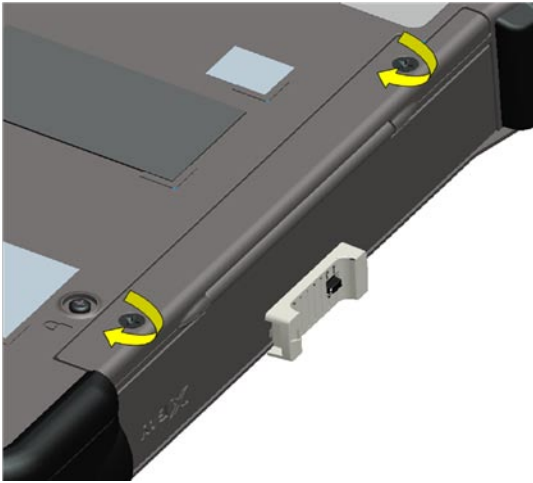


6.5.2 Installing the XBay Door

1. Place the XBay Door onto the notebook, aligning it with the 2 screw mount holes.



2. Using the 2 screws provided, secure the XBay Door to the notebook.



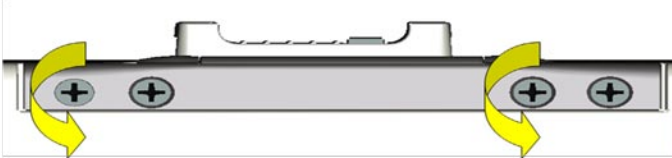
6.6 Audio Ports/WiFi Door

The Audio Ports/WiFi Door is located on the left side of the notebook, and protects the notebook's audio connectors, smart card slot, 1394 connector, and wireless switch.

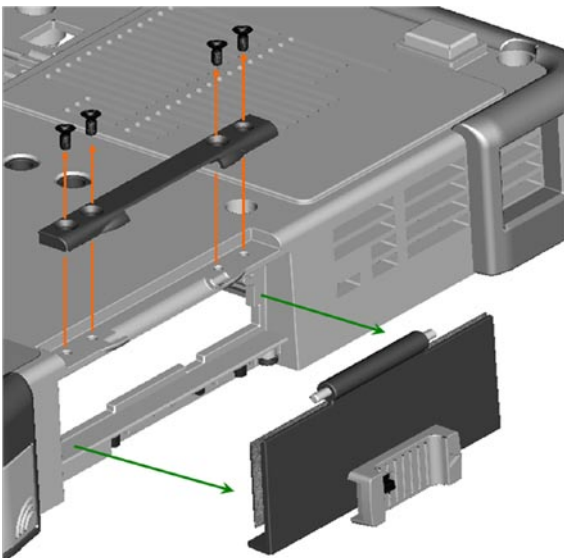
To access the Audio Ports/WiFi Door for service, turn the notebook bottom side up.

6.6.1 Removing the Audio Ports/WiFi Door

1. Remove the 4 screws that secure the Audio Ports/WiFi Door's hinge retaining bar.

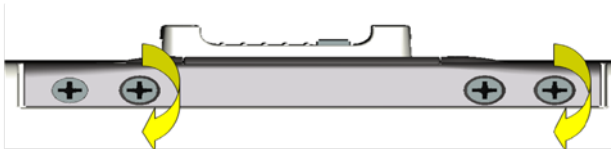
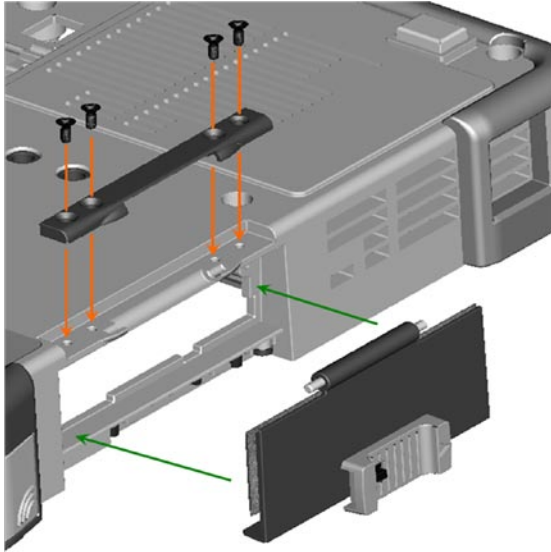


2. Lift the hinge retaining bar away from the notebook, which then allows the door to be removed from the notebook.



6.6.2 Installing the Audio Ports/WiFi Door

1. Place the Audio Ports/Wifi Door's onto the notebook, aligning the door hinge into the slot on the notebook.
2. Place the hinge retaining bar over the hinge.
3. Align the holes in the retaining bar with the holes in the notebook.
4. Use the 4 screws to secure the hinge retaining bar.



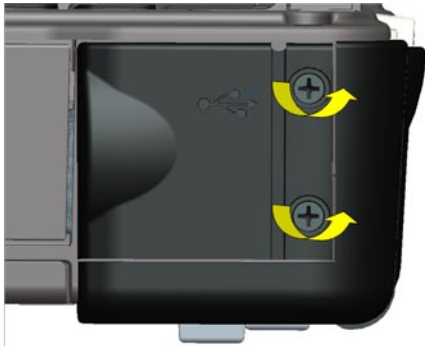
6.7 USB Side Door

The USB Side Door is located on the notebook's right side, and protects 2 USB connectors.

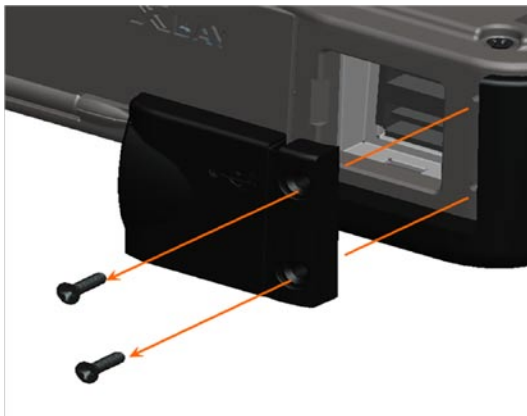


6.7.1 Removing the USB Side Door

1. Remove the 2 screws that secure the USB Side Door to the notebook.

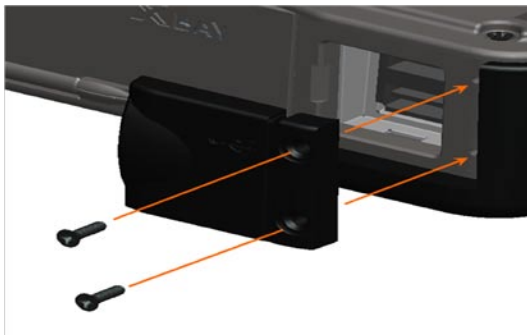


2. Remove the USB Side Door from the notebook.



6.7.2 Installing the USB Side Door

1. Place the USB Side Door onto the notebook, aligning it with the 2 screw mount holes.

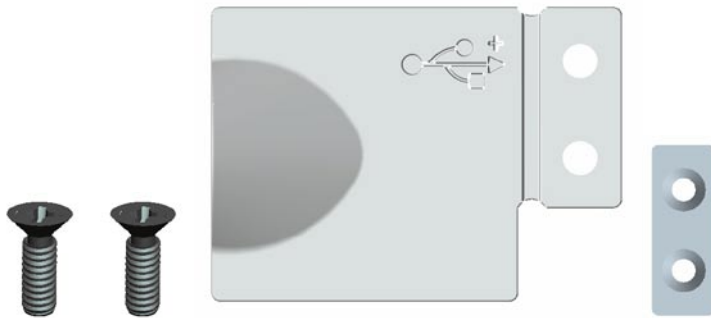


2. Install the 2 screws to secure the USB Side Door to the notebook.



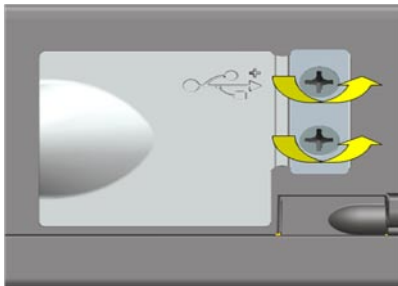
6.8 USB Rear Door

The USB Rear Door is located on the notebook's rear panel, and protects 2 USB connectors.

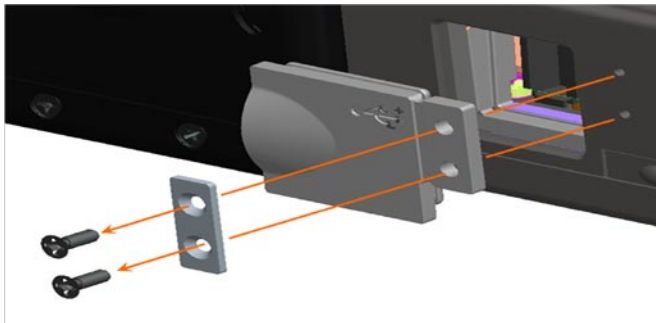


6.8.1 Removing USB Rear Door

1. Remove the 2 screws that secure the USB Rear Door to the chassis. Also remove the gasket which is positioned between the screws and the door.

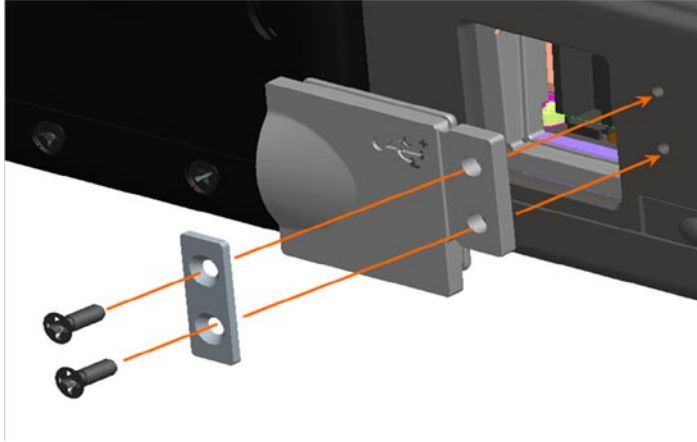


2. Remove the USB Rear Door from the notebook.

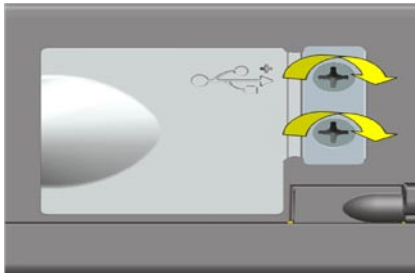


6.8.2 Installing USB Rear Door

1. Position the USB Rear Door onto the notebook, aligning it with the 2 screw mount holes on the notebook. Then align the gasket with the screw holes on the USB Rear Door.



2. Using the 2 screws provided, secure the USB Rear Door and the gasket to the notebook.



6.9 PC Card Slot Door

The PC Card Slot Door is located on the notebook's left side, and protects the notebook's PC Card/ExpressCard Slot.

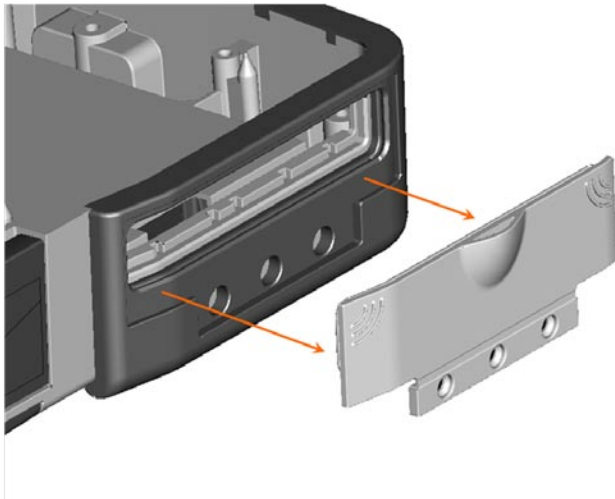
6.9.1 Removing the PC Card Slot Door

1. Remove the 3 screws that secure the PC Card Slot Door to the notebook.



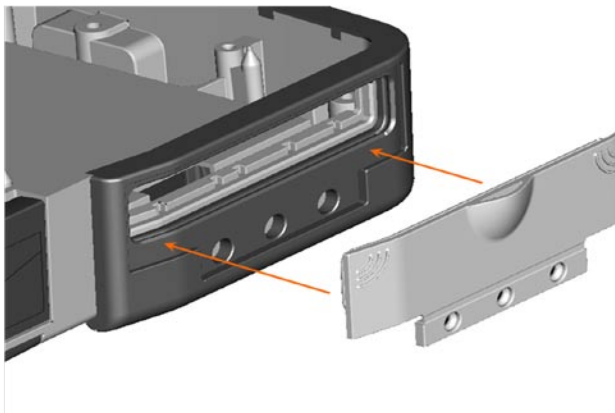


2. Remove the PC Card Slot Door from the notebook.



6.9.2 Installing the PC Card Slot Door

1. Align the PC Card Slot Door with the 3 screw mount holes on the notebook.



2. Using the 3 screws provided, secure the PC Card Slot Door to the notebook.



7 Hinge Cover

⚠ CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

➡ NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

➡ NOTICE: The hinge cover is fragile and can be damaged if extreme force is used. Be careful when removing the hinge cover.

7.1 Removing the Hinge Cover

1. Follow the procedures in [Before You Begin](#).
2. Turn the computer top-side up, and then open the display all the way (160 degrees).

➡ NOTICE: To avoid damaging the hinge cover, do not lift the cover on both sides simultaneously. Removing the hinge cover in a different way than described may cause the plastic to break.

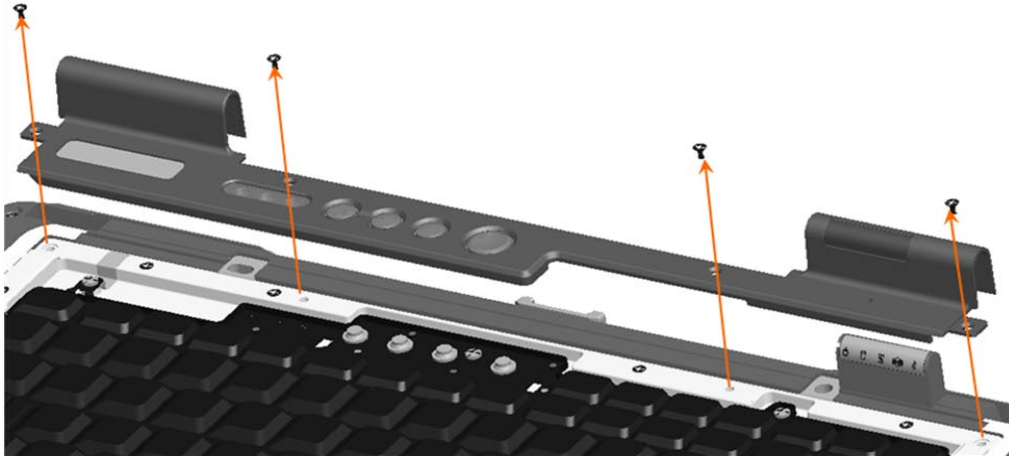


Keyboard/palm rest overlay

3. Remove keyboard/palm rest overlay first. Start in top corners next to each hinge to remove the overlay. The overlay peels off.



4. Remove the 4 M2 x 5-mm screws that secure the hinge cover to the base. See image below.



5. Starting on the right side of the notebook, use a plastic scribe inserted in the hinge area to pry up the hinge cover. Lift the right side of the hinge cover away from the notebook. Then go to the left side, and similarly lift the left side of the hinge cover.
6. Remove the hinge cover. Lay the hinge cover aside.

7.2 Installing the Hinge Cover

Before installing the hinge cover, ensure that all cables are routed correctly. Improper routing of the cables can cause damage to the cables.

1. To replace the hinge cover, insert the left edge of the cover into place and place the hinge cover over the hinges.
2. Ensure that the hinge cover edges line up with those on the palm rest.
3. Install the 4 screws to secure the hinge cover to the base.
4. Install the new keyboard/palm rest overlay.
 - a. Remove the backing from the new keyboard/palm rest overlay.
 - b. Start applying the overlay around the touchpad area to align the overlay.
 - c. Press evenly and firmly as the overlay is applied.
 - d. The top of the overlay will cover the hinge cover screws on each side of the hinge cover.

8 Keyboards

The XFR can be equipped with either the standard keyboard or the optional rugged, backlit keyboard. This section provides instructions for the removal and installation of both keyboards.

8.1 Standard Keyboard

8.1.1 Removing the Standard Keyboard

⚠ CAUTION: Before working inside your computer, follow the safety instructions in the

XFR D630 Product Information Guide and in the XFR D630 User's Guide.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Turn the computer right-side up and open it.
3. Remove the hinge cover (see [Removing the Hinge Cover](#)).

NOTICE: Do **not** remove the keyboard from the keyboard tray! You are removing the entire tray, not just the keyboard. The normal keyboard screws above the keyboard attach the keyboard to the tray. See next step for keyboard tray removal.

4. Loosen the fifteen keyboard tray captive screws.



1 Keyboard tray captive screw (15)

NOTE: Lift the keyboard carefully in **step 5** to ensure that you do not pull on the keyboard cable.

5. Lift the keyboard tray slightly.
6. Pull up on the pull-tab to disconnect the keyboard cable connector from the keyboard connector on the system board.



8.1.2 Installing the Standard Keyboard

1. Attach the keyboard cable to the motherboard.
2. Lay the keyboard tray in position and tighten down the 15 captive screws.
3. Replace the hinge cover (see [Installing the Hinge Cover](#)).

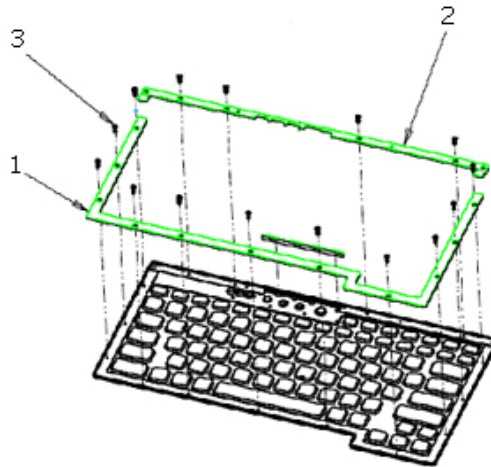
8.2 Rugged Keyboard

8.2.1 Removing the Rugged Keyboard

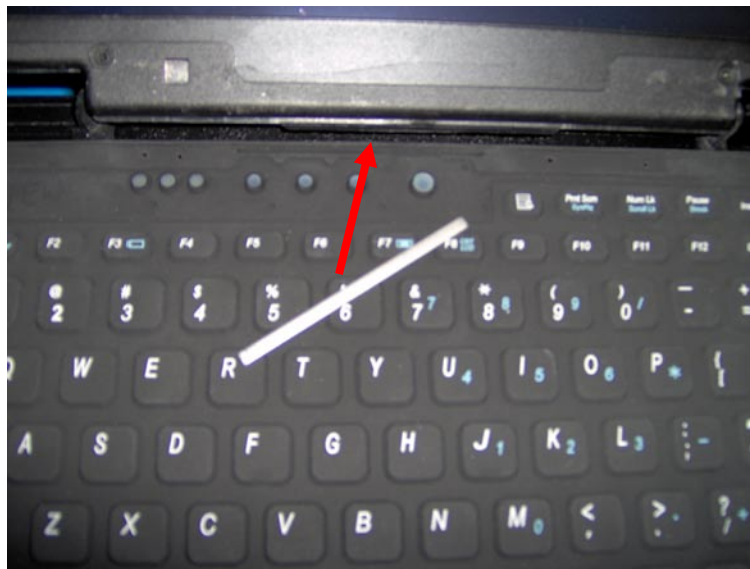
CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

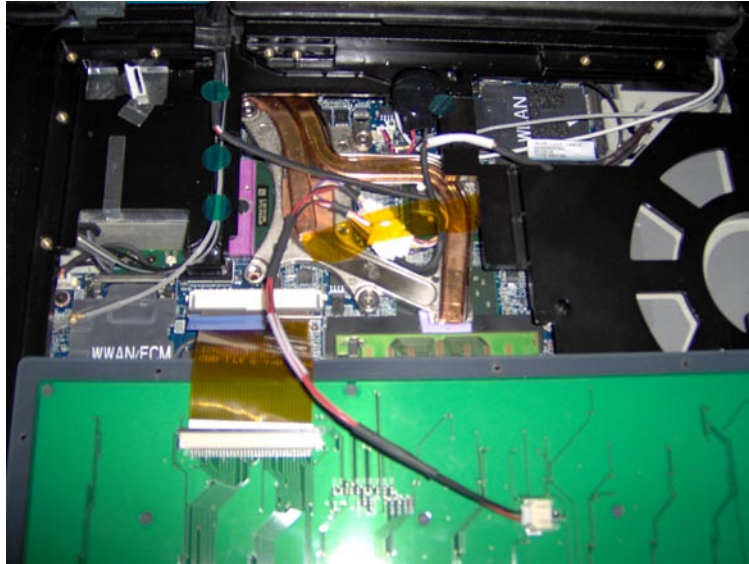
1. Follow the instructions in [Before You Begin](#).
2. Turn the computer right-side up and open it.
3. Remove the hinge cover (see [Removing the Hinge Cover](#)).
4. Remove the 15 M2x6 captive screws (item 3 in image below) that secure the top and bottom metal brackets (items 1 and 2 in image below) around the keyboard. Remove the top and bottom metal brackets.



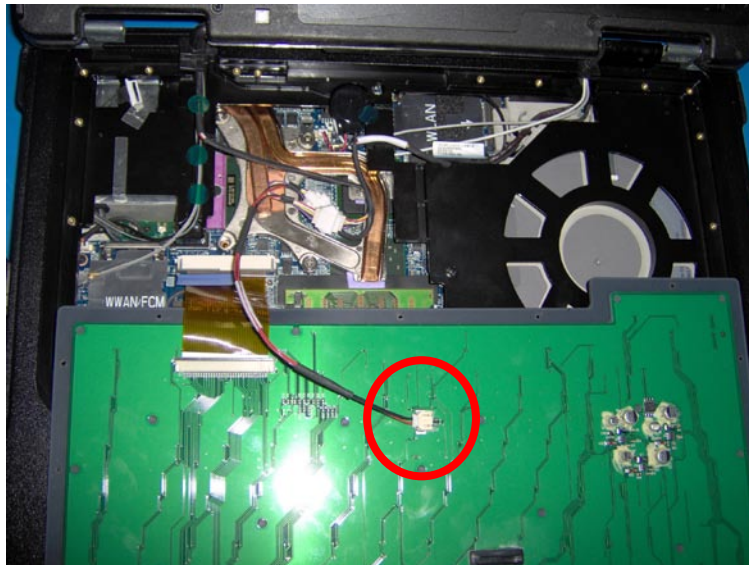
5. Lift up on the rubber lip around the keyboard to lift the keyboard away from the system. Be sure to locate and remove the keyboard stiffener bar located at the top of the keyboard above the power and audio buttons.



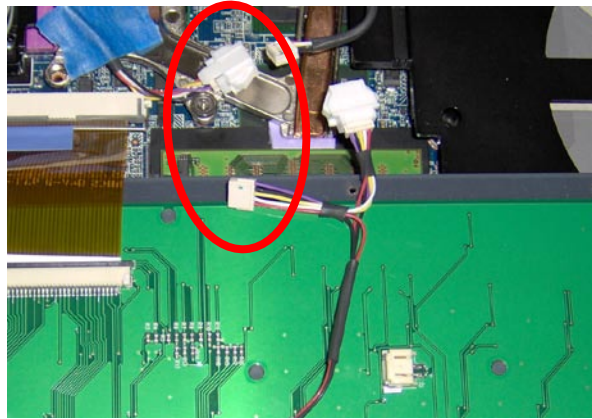
6. Rotate the keyboard towards yourself, so that the bottom of the keyboard and the keyboard cables are viewable.



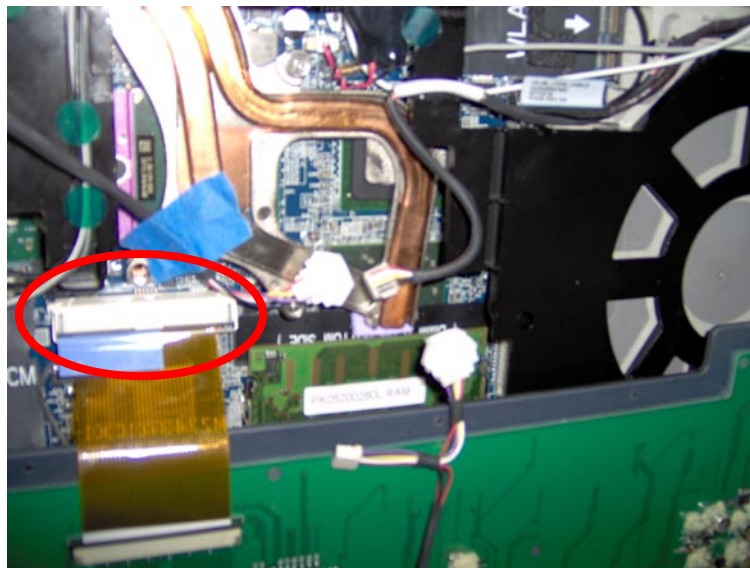
7. Remove the Kapton tape that secures the spliced cable and the backlight power cable in place.
8. Disconnect the keyboard backlight power cable from the back of the keyboard.



9. Disconnect the keyboard backlight cable from the touch screen splice coming from the mother board. If this is a touch screen system, also disconnect the keyboard to backlight cable from the touch screen splice coming from the LCD.

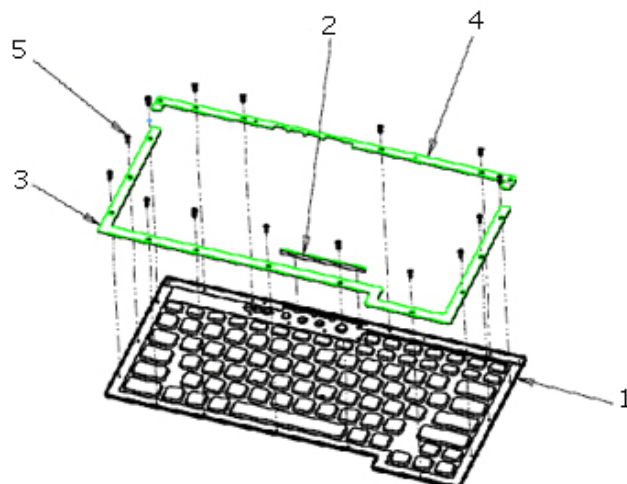


9. Disconnect the rugged keyboard connector from the motherboard connector.



8.2.2 Installing the Rugged Keyboard

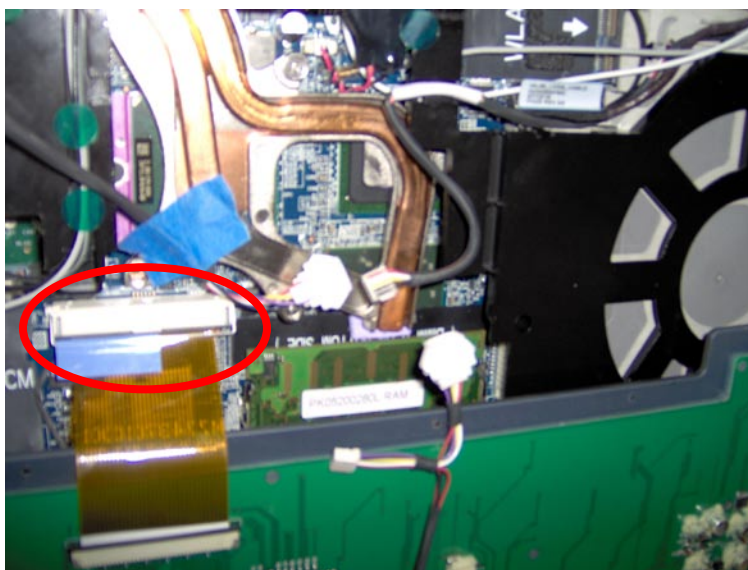
The following parts are required to assemble the rugged keyboard to the Dell XFR.



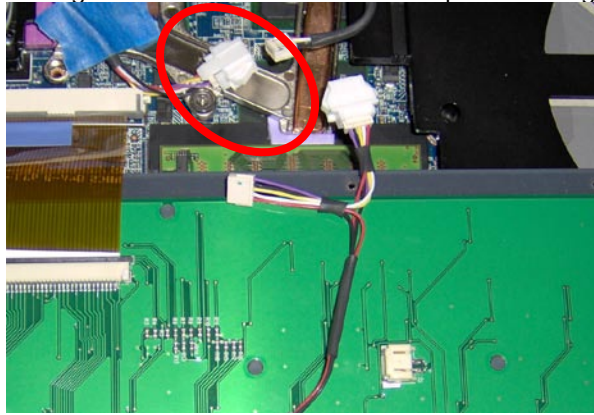
1. KYBD, 87, US, ENG, RGD, XFR
2. Rubber keyboard stiffener bar
3. CLMP, SPRT, PLMST, MET, BOTTOM, XFR
4. CLMP, SPRT, PLMST, MET, TOP, XFR
5. CSK CAPTIVE SCREW M2x6 – BLACK (x15)
6. CABLE ASSY, KYBD, BACKLIGHT (not shown in image above)

Installation Steps:

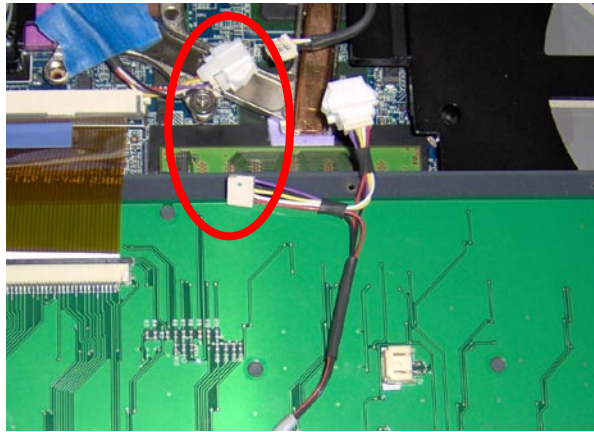
1. Connect the rugged keyboard connector to the mother board connector.



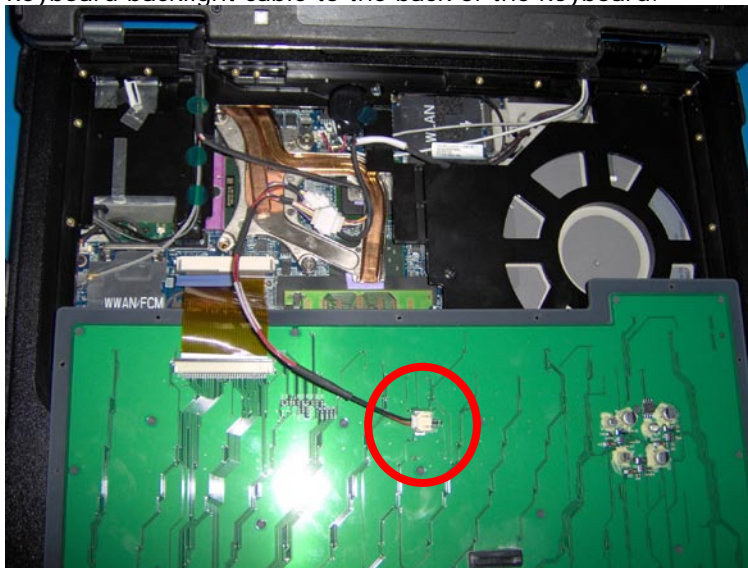
2. Connect keyboard backlight cable to the touch screen splice coming from the mother board.



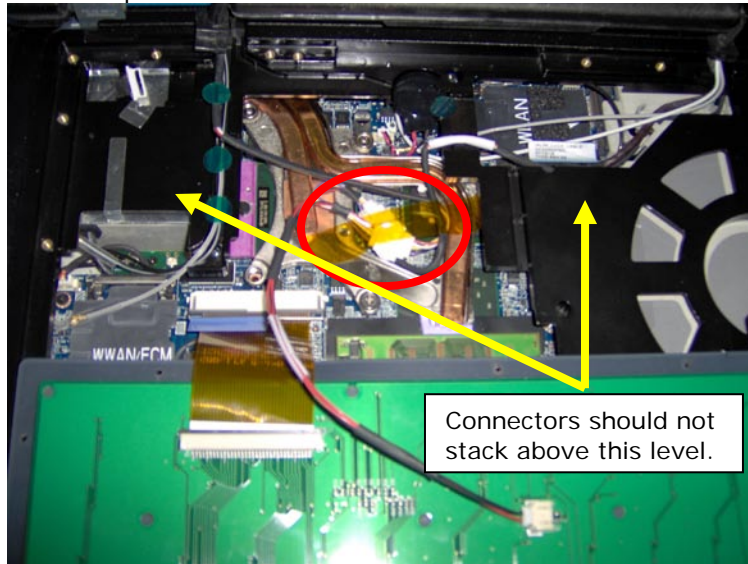
3. Connect keyboard to backlight cable to the touch screen splice coming from the LCD if this is a touch screen system.



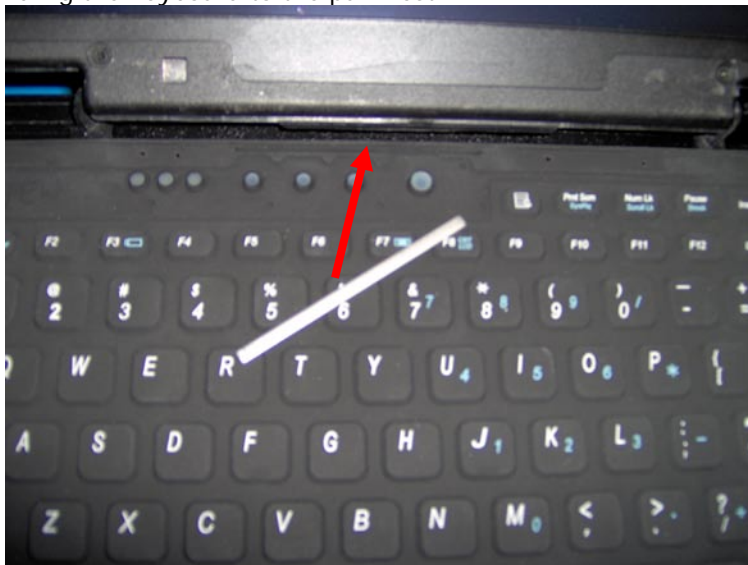
4. Connect the keyboard backlight cable to the back of the keyboard.

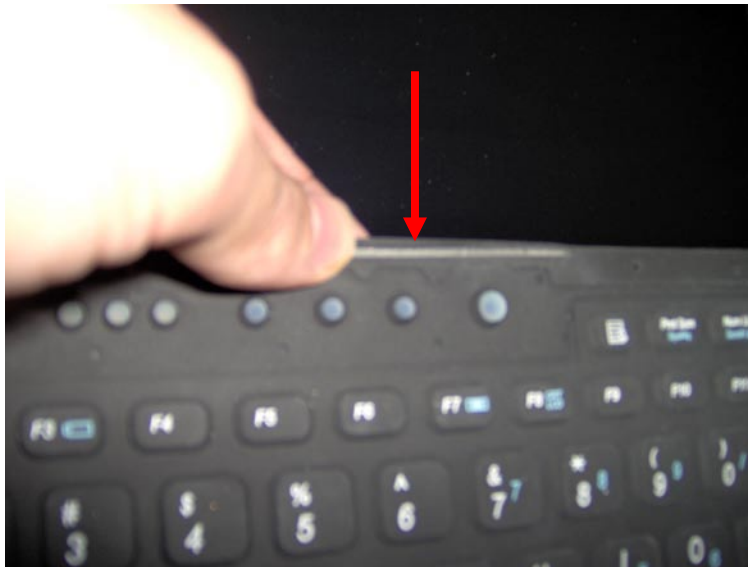


5. Place connectors from the spliced cable and the backlight power cable in the recessed area of the thermal solution. Stack them and use a 2.5" piece of Kapton tape to hold them in place below the level of the palmrest.

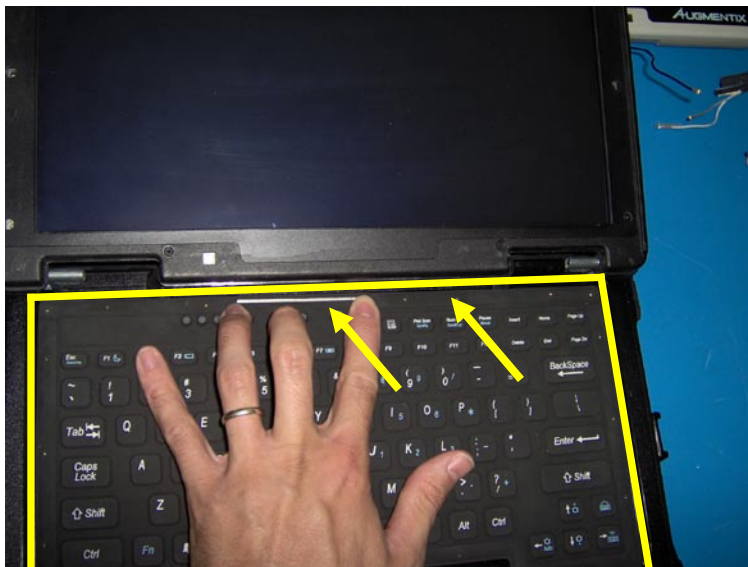


6. Assemble the keyboard stiffener bar into the slot above the power and audio buttons. Do this before assembling the keyboard to the palmrest.





7. Assemble the keyboard onto the palmrest.
 - a. Apply pressure around the perimeter to ensure the keyboard lip is properly fitted to the palmrest bucket.
 - b. Apply pressure on the area around the keyboard stiffener bar and near the right hinge to ensure there is no bulging.



8. Assemble the bottom metal bracket paying close attention to the lower right corner. Move the bracket in the direction shown in the image below. The bracket should fit in place, pressing the rubber lip against the palmrest. Make sure the rubber lip looks uniform throughout the perimeter and that it has not folded under the bracket. Any gaps will compromise the quality of the seal.



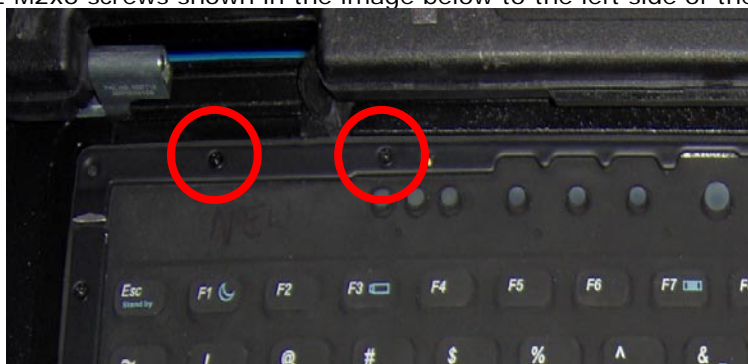
9. Fasten the 11 M2x6 screws in the order shown in the image below to secure the bottom metal bracket. As each of the screws around the bracket is secured, ensure that the rubber lip is not folded under the bracket.



10. Assemble the top metal bracket ensuring the rubber lip is not folded under the bracket. Move the bracket into position in the direction shown in the image below.



11. Fasten the 2 M2x6 screws shown in the image below to the left side of the top metal bracket.



12. Fasten the 2 M2x6 screws shown in the image below to complete the installation of the top metal bracket.



13. Replace the hinge cover (see [Installing the Hinge Cover](#)).

9 Memory

CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

- NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- NOTICE:** If your computer has only one memory module, install the memory module in the connector labeled "DIMM A," which is underneath the keyboard.
- NOTICE:** If you remove your original memory modules from the computer during a memory upgrade, keep them separate from any new modules that you may have, even if you purchased the new modules from Dell. If possible, do not pair an original memory module with a new memory module. Otherwise, your computer may not function at optimal performance.
- NOTE:** Memory modules purchased from Dell are covered under your computer warranty.

Your computer has two user-accessible SODIMM sockets, one accessed from beneath the keyboard (DIMM A), and the other accessed from the bottom of the computer (DIMM B).

9.1 DIMM A

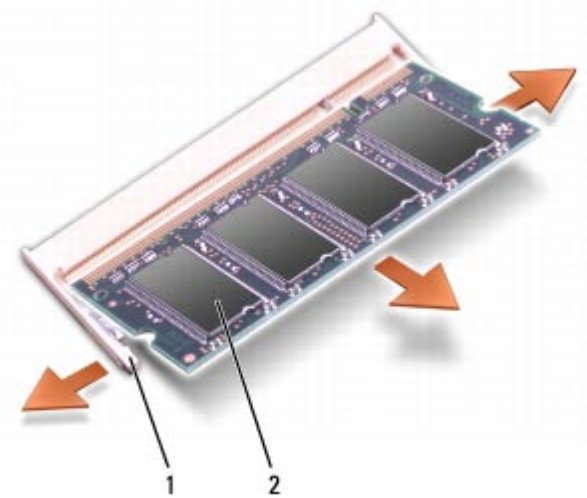
1. Follow the procedures in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).



1	memory module (DIMM A)	2	securing clips (2)
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NOTICE: To prevent damage to the memory module connector, do not use tools to spread the memory-module securing clips.

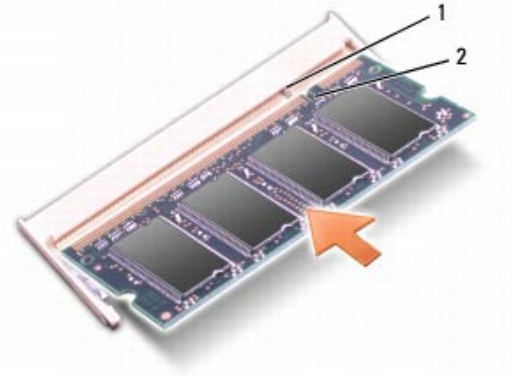
4. If you are replacing a memory module, ground yourself and remove the existing module:
 - a. Use your fingertips to carefully spread apart the securing clips on each end of the memory module connector until the module pops up.
 - b. Remove the module from the connector.



1	securing clips (2)	2	memory module
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5. Ground yourself and install the new memory module:
 - a. Align the notch in the module connector with the tab in the connector slot.
 - b. Slide the module firmly into the slot at a 45-degree angle, and rotate the module down until it clicks into place. If you do not feel the click, remove the module and reinstall it.

NOTE: If the memory module is not installed properly, the computer may not boot properly. No error message indicates this failure.



1	tab	2	notch
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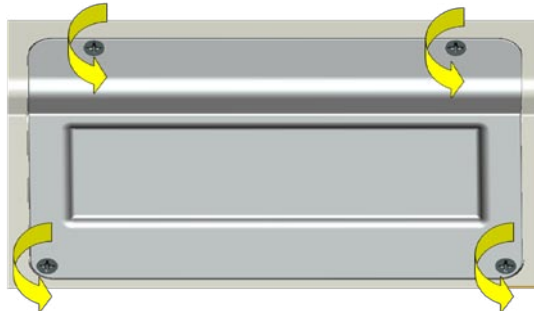
6. Replace the keyboard (see [Keyboards](#)).
7. Replace the hinge cover (see [Installing the Hinge Cover](#)).

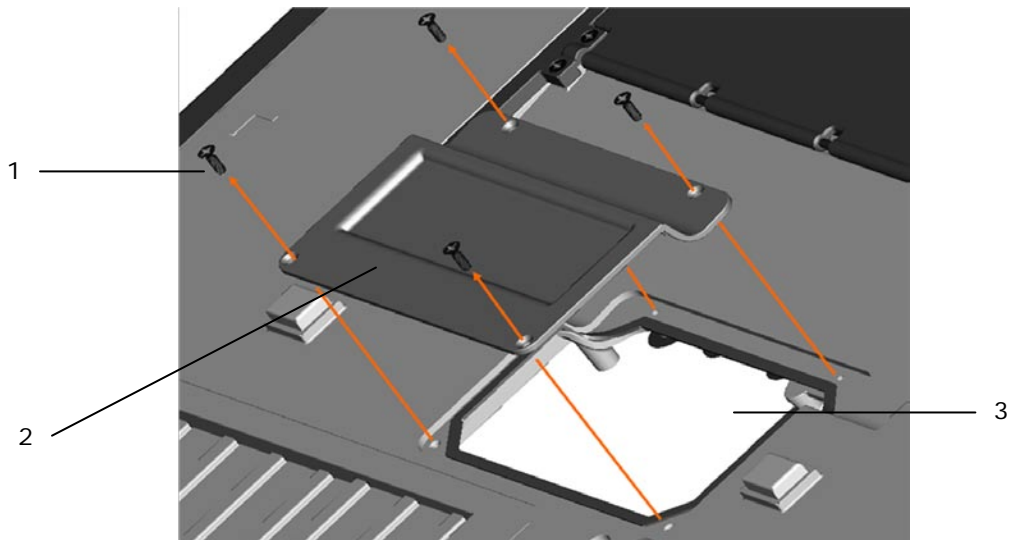
9.2 DIMM B

➡ **NOTICE:** If you need to install memory modules in two connectors, install a memory module in the connector labeled "DIMM A" before you install a module in the connector labeled "DIMM B."

➡ **NOTICE:** Insert memory modules at a 45-degree angle to avoid damaging the connector.

1. Follow the procedures in [Before You Begin](#).
2. Turn the computer bottom-side up, remove the 4 screws that secure the memory module cover, and then remove the cover.

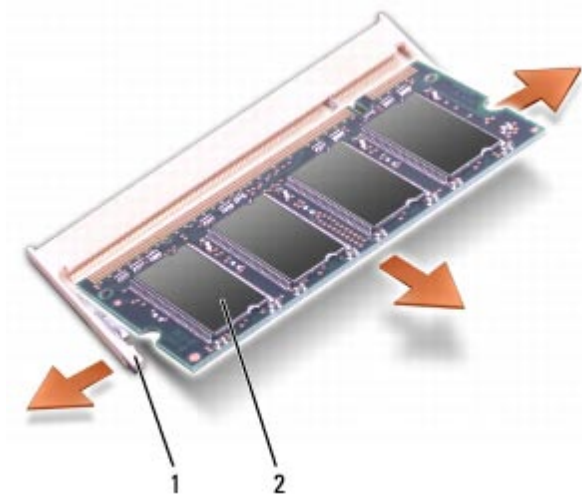




1	Screws (4)	2	Memory module cover	3	Memory module compartment
---	------------	---	---------------------	---	---------------------------

NOTICE: To prevent damage to the memory module connector, do not use tools to spread the memory-module securing clips.

3. If you are replacing a memory module, ground yourself and remove the existing module:
 - a. Use your fingertips to carefully spread apart the securing clips on each end of the memory module connector until the module pops up.
 - b. Remove the module from the connector.




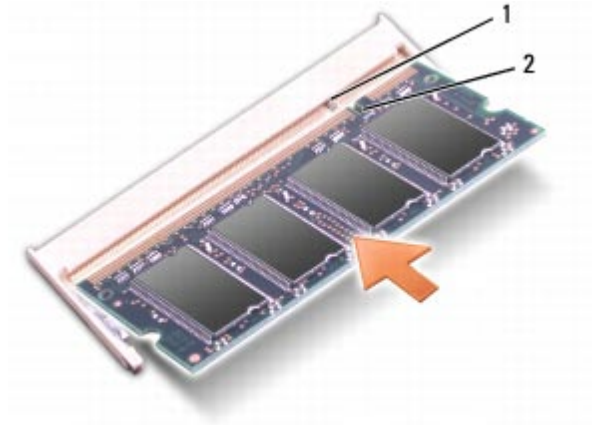
1	securing clips (2)	2	memory module
---	--------------------	---	---------------

NOTICE: Insert memory modules at a 45-degree angle to avoid damaging the connector.

4. Ground yourself and install the new memory module:
 - a. Align the notch in the module edge connector with the tab in the connector slot.

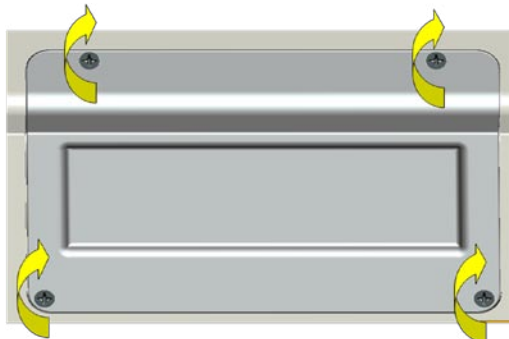
- b. Slide the module firmly into the slot at a 45-degree angle, and rotate the module down until it clicks into place. If you do not feel the click, remove the module and reinstall it.


 **NOTE:** If the memory module is not installed properly, the computer may not boot properly. No error message indicates this failure.



1	tab	2	notch
---	-----	---	-------

5. Replace the memory module cover, and use the 4 screws to secure the cover.



 **NOTICE:** If the cover is difficult to close, remove the module and reinstall it. Forcing the cover to close may damage your computer.

6. Insert the battery into the battery bay, or connect the AC adapter to your computer and an electrical outlet.
7. Turn on the computer.

As the computer boots, it detects the additional memory and automatically updates the system configuration information.

To confirm the amount of memory installed in the computer, click **Start -> Help and Support -> Use Tools to view your computer information and diagnose problems -> My Computer Information**.

10 Display Assembly

10.1 Removing the Display Assembly

CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).

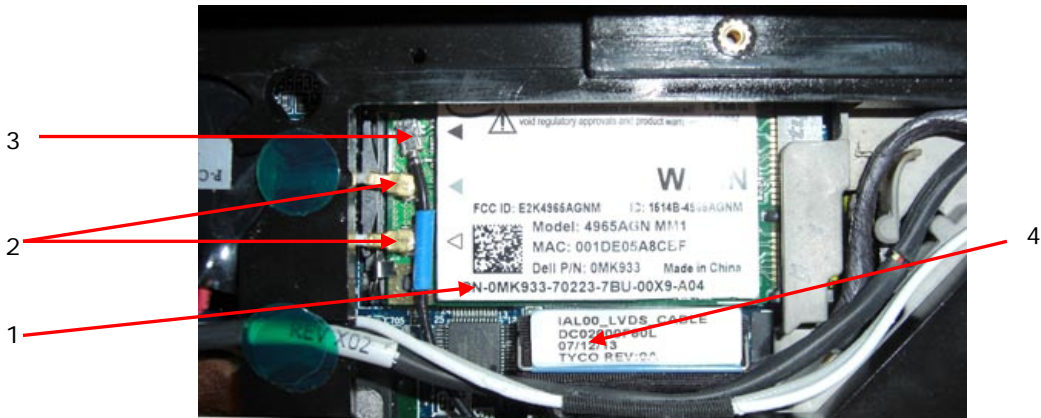
NOTICE: To avoid damage to your computer, carefully reroute the cables in the appropriate cable channels when replacing the display. Route the gray and black antenna cables beneath the white antenna cable, and the black display cable on top of the white antenna cable.

NOTICE: For the optional Touch Screen Display, remove the touch controller cable from the I/O board on the right side, near the right hinge.

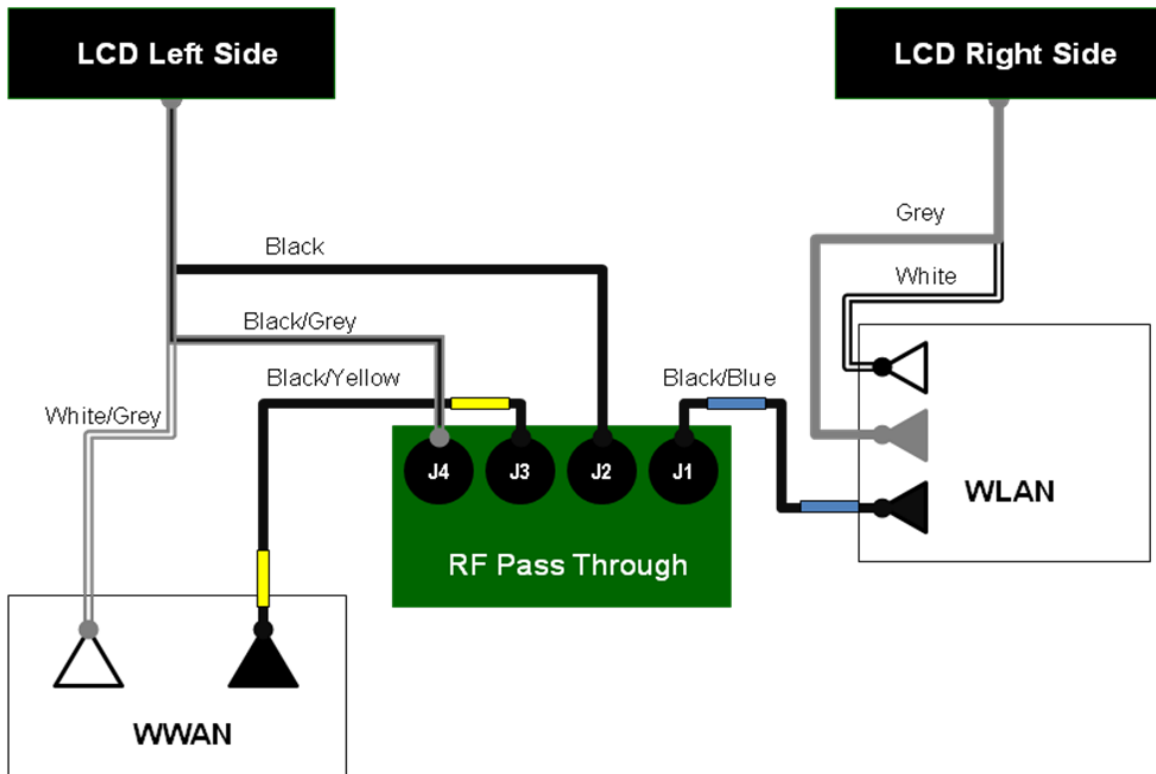
4. Unplug the display cable:
 - a. Pull straight up on the pull-tab that is attached to the display-feed flex cable to disconnect the cable from the system board.

NOTE: The following step is only for the optional Touch Screen display.

- b. Disconnect the touch controller cable from the motherboard controller cable, above the heat sink.
5. Disconnect the antenna cables from their card(s) (see [WLAN Card](#) and [RF Passthru Board](#)).



1	WLAN card	2	antenna cable connectors	3	RF Passthru cable connector
4	Display cable connector				

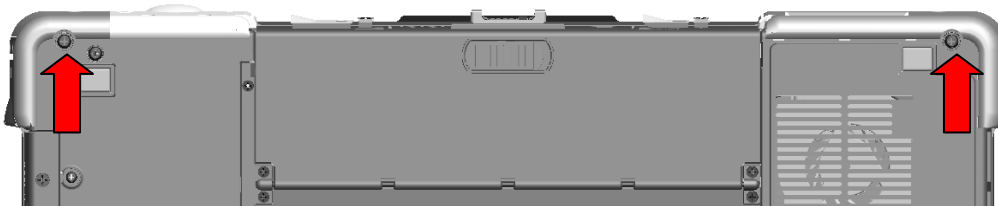


Wireless Block Diagram

6. Carefully remove the antenna cables and the display cable from their routing guides.
7. Close the display.
8. Turn the computer upside-down with the back of the computer facing you.
9. From the back of the computer, remove the two M2.5 x 8-mm screws.



10. From the bottom of the computer, remove the two M2.5 x 8-mm screws.



11. Turn the computer right-side up and open the display.

12. Lift the display assembly out of the base.

NOTE: The display grommets only need to be removed if you are replacing the display assembly or replacing the display top cover assembly. The replacement kit will contain the grommet tool that you need to perform the following steps. If your replacement kit does not contain the grommet tool, do not perform the following steps.



Grommet tool

13. Follow these steps to remove the grommets from the left and right side of the display assembly.



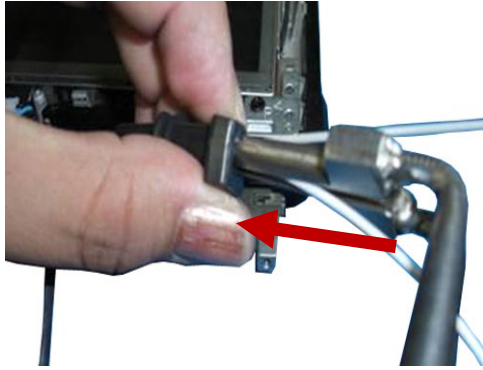
Location of left and right display grommets

a. To remove the right side grommet:

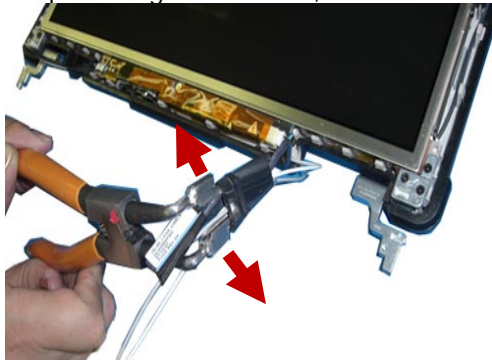
i. Lift and slide the grommet partially down the set of antenna cables



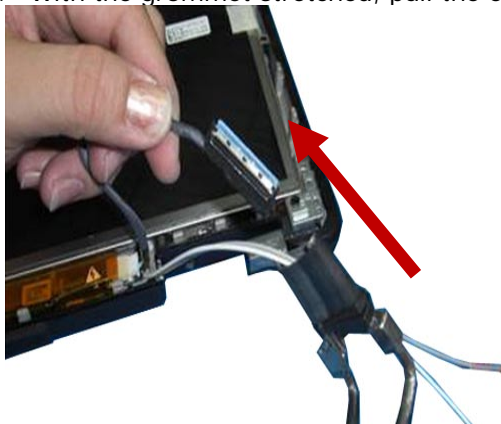
ii. Slide the ends of the grommet tool into the end of the grommet



- iii. Open the grommet tool, to allow the tool to stretch the grommet open.



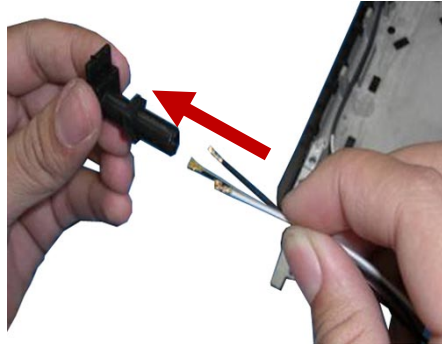
- iv. With the grommet stretched, pull the ends of the cables through the grommet.



- b. To remove the left side grommet:
 - i. Lift and slide the grommet partially down the set of antenna cables.



- ii. Slide the cables through the grommet.

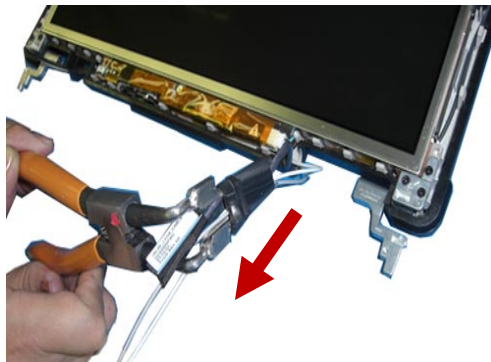


10.2 Installing the Display Assembly

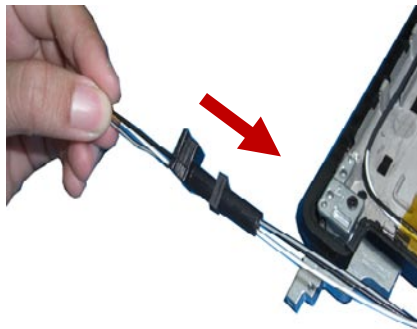
➡ **NOTICE:** To avoid damage to your computer, when replacing the display assembly be careful to reroute the cables in the appropriate cable channels.

✎ **NOTE:** If the display assembly was disassembled, the grommets had to be removed. The following steps explain how to install the grommets. If the grommets are already installed on the display cables, skip to **step 2**.

1. Install the display cable grommets on the left and right side of the display assembly.
 - a. To install the right side grommet, use the grommet tool to spread the grommet open, and slide the cables through the grommet



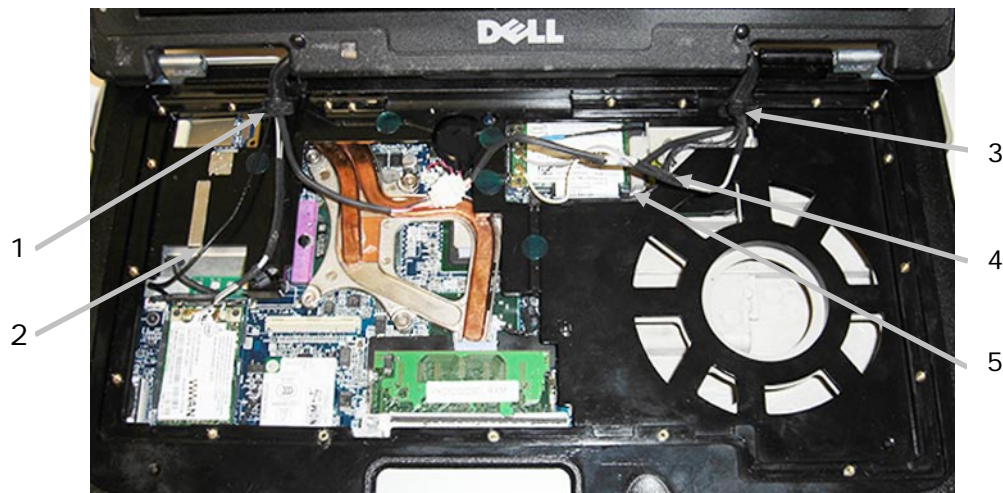
- b. To install the left side grommet, slide the left side cables through the grommet.





Location of left and right display grommets

2. From the bottom of the computer, install the two M2.5 x 8-mm screws.
3. From the back of the computer, install the two M2.5 x 8-mm screws.
4. Carefully place the antenna cables and the display cable into their routing guides.



1	Left side grommet	2	Antenna cable	3	Right side grommet
4	Antenna cables	5	Display cable		

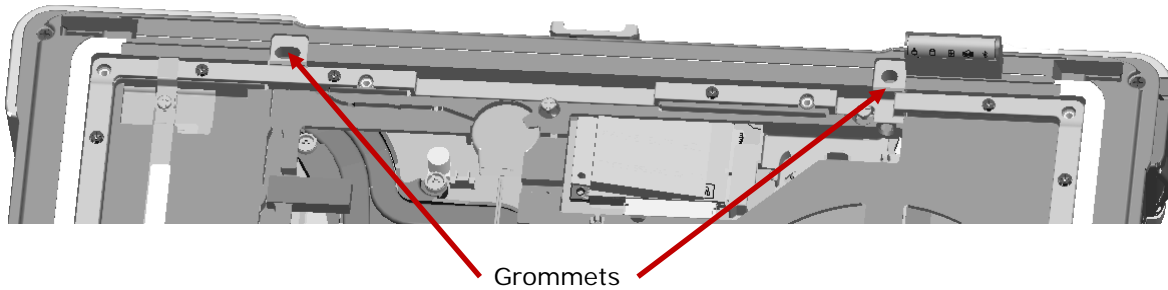
5. Connect the antenna cables to their card(s) (see [WLAN Card](#) and [RF Passthru Board](#)).
6. Connect the display cable:

- a. Attach the display-feed flex cable to the system board.



NOTE: The following step is only for the optional Touch Screen display.

- b. Attach the touch controller cable to the motherboard controller cable, above the heat sink.
7. Seat the cable grommets into the square cavities on each side of the palm rest base.



8. Install the keyboard (see [Keyboards](#)).
9. Install the hinge cover (see [Installing the Hinge Cover](#)).

10.3 Removing the Display Bezel

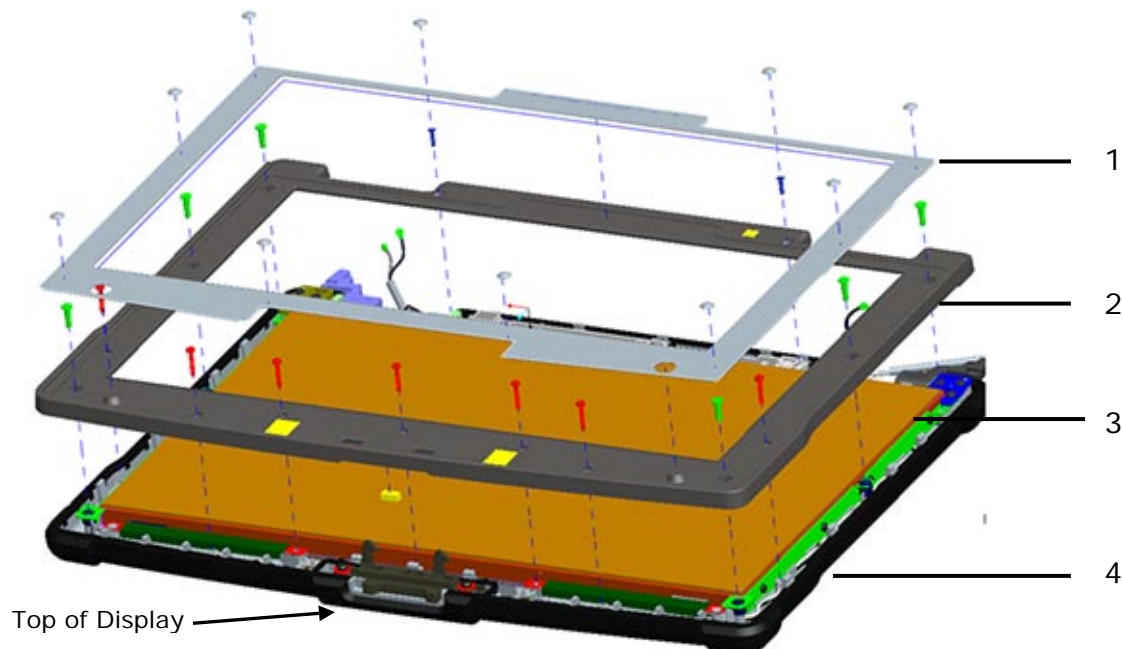
CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

NOTE: Replacing the display bezel does not require removing the display assembly from the base.

NOTE: Replacement keyboard/palm rest overlays are not included in the bezel service kits.

1. Follow the instructions in [Before You Begin](#).
2. Turn the computer top-side up, and then open the display all the way (160 degrees).
3. Remove bezel overlay. Start in the upper left or right corner to peel the overlay off of the bezel.




1	display bezel overlay	2	display bezel	3	display panel
4	display back cover				

PART NUMBER	SCREW TYPE	QUANTITY
18428	CSK SCREW M2 X 8-BLACK	2
18417	PAN HEAD SCREW M2 X 12-BLACK	7
18114	SHOULDER SCREW M2.5	6


4. Remove the fifteen (15) screws that secure the bezel:

- Two - SCR,M2X8,PHH,MSCR,ZPS,XFR
- Seven - SCR,M2X12,PHH,MSCR,ZPS,XFR
- Six - SCR,M2.5X10,PHH,MSCR,SHLDR,XFR

 **NOTICE:** Carefully separate the bezel from the display back cover to avoid damage to the bezel.

5. Starting from the outside edges of the bezel, use your fingers to gently pry the bezel upward from the display panel. Release the sides of the bezel next; if necessary, use a plastic scribe to carefully release the corners of the bezel from the display panel.

10.4 Installing the Display Bezel

 **NOTICE:** To avoid damaging the computer when replacing the display bezel, ensure that the bezel edges line up with those on the display back cover, and snap into place around the entire perimeter of the display back cover.

1. Align the display bezel, and install the fifteen (15) screws that secure the bezel:

- Two - SCR,M2X8,PHH,MSCR,ZPS,XFR
- Seven - SCR,M2X12,PHH,MSCR,ZPS,XFR
- Six - SCR,M2.5X10,PHH,MSCR,SHLDR,XFR

2. Install the new bezel overlay.

- Remove the backing material from the bezel overlay.
- Initially position the overlay around the top two Display bumpers.
- Press evenly and firmly to apply the overlay.

3. Install the 2 screw covers to the bottom center screws.

4. Remove the 8 screw covers from the original bezel overlay and apply to the new overlay. Each screw cover location on the overlay is marked by a white dot.

10.5 Removing the Display Panel

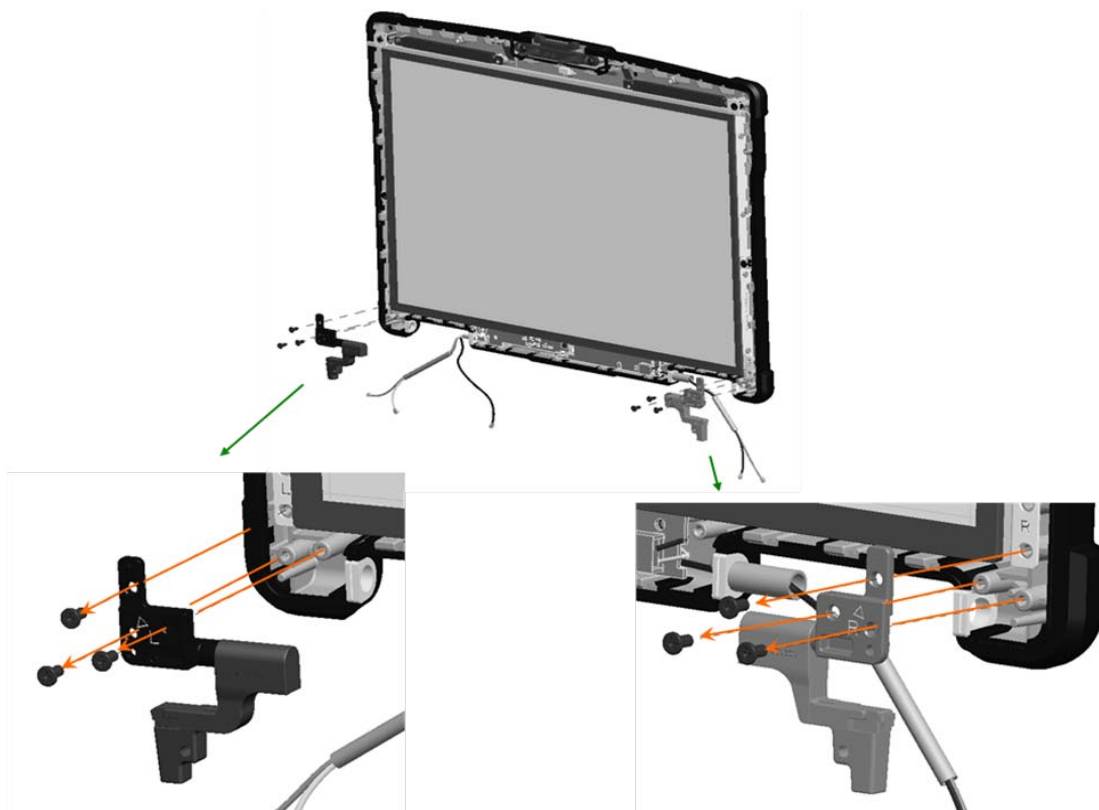
CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Remove the display assembly (see [Removing the Display Assembly](#)).

NOTE: Ensure the display cable grommets were removed by following the grommet removal instructions provided in [Removing the Display Assembly](#) at **step 13**.

3. Remove the display bezel (see [Removing the Display Bazel](#)).
4. Remove hinges. Remove 3 M2.5 x 5-mm screws from each side of the display panel and remove the hinge from each side.





CAUTION: To avoid damage to your display panel, handle the panel by the bracket tabs only.

5. Pull the LVDS cable thru the rubber grommet in the LVDS/antenna cable assembly, near the right side hinge. These antenna cables are part of the back cover assembly and must be separated from the LVDS cable to allow removal of the Display Panel.

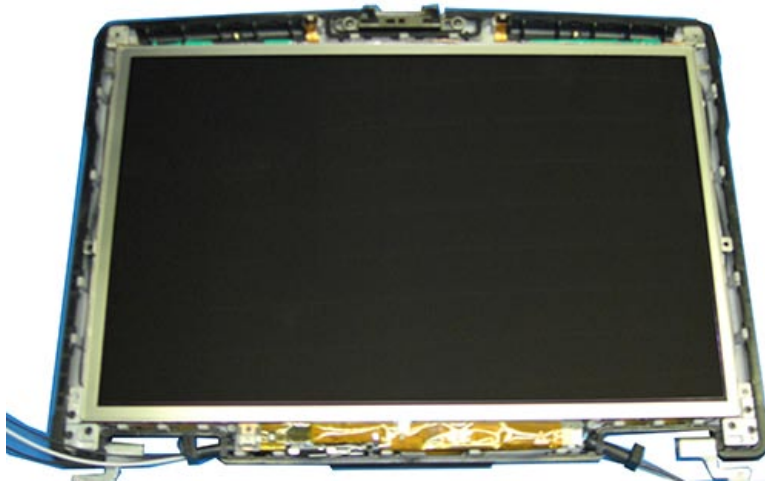
6. For the optional Touch Screen displays, pull the touch controller cable through the rubber grommet in the antenna cable assembly on the left side hinge. These antenna cables are part of the back cover assembly and must be separated from the touch controller cable to allow for the removal of the Display Panel.
7. Lift the display panel a few inches from the display back cover.
8. Draw the LED ribbon-cable release tab away from the display panel to release the ribbon cable, and lift the display panel fully from the display back cover.

10.6 Installing the Display Panel

 **NOTE:** Remove the replacement display panel assembly from its packaging. The new part will have packing material covering the LVDS connector. The LVDS cable will be taped to the back of the panel on top of the copper foil backing so care is needed during tape removal.

 **NOTE:** For optional Touch Screen Display panels, the touch controller cable is also taped to the back of the panel on top of the copper foil backing, and similar care is needed during tape removal.

1. Connect the LED cable.
2. Align the display panel in the top cover.




3. Check cable routing on each side of the inverter. On the right side, verify LVDS cable and antenna cables are correctly placed to exit the top cover as shown. On the left side, verify antenna cables and touch controller cable (for touch screen Displays only) are correctly placed to exit the top cover as shown above.
4. Route cables into the grommets on each side using the grommet tool.
5. Align grommet on each side with top cover edge, to seal the opening where cables exit the Display Assembly.




Location of left and right display grommets


6. Install hinge on each side, on top of display panel brackets. Secure each hinge to top cover with 3 M2.5 X 5-mm screws.


 **NOTE:** Hinges are labeled R (right) and L (left) and must be installed on the correct side.

7. Install the bezel (see [Installing the Display Bezel](#)).
8. Install the display assembly (see [Installing the Display Assembly](#)).


 **NOTE:** Ensure the display cable grommets are properly installed by following the instructions provided at the beginning of [Installing the Display Assembly](#).

10.7 Removing the Display Top Cover

 **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.


 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Remove the display assembly (see [Removing the Display Assembly](#)).


 **NOTE:** Ensure the display cable grommets were removed by following the grommet removal instructions provided in [Removing the Display Assembly](#) at **step 13**.

3. Remove the display bezel (see [Removing the Display Bezel](#)).
4. Remove the display panel (see [Removing the Display Panel](#)).


10.8 Installing the Display Top Cover


 **NOTE:** If replacing the display top cover, remove the replacement display top cover from its packaging. The new part will have a mylar covering. The antenna cable will be taped to the inside of the cover. Carefully remove the tape from the antenna cable.


1. Follow the instructions in [Before You Begin](#).
2. Install the display panel (see [Installing the Display Panel](#)).
3. Install the display bezel (see [Installing the Display Bezel](#)).
4. Install the display assembly (see [Installing the Display Assembly](#))


 **NOTE:** Ensure the display cable grommets are properly installed by following the instructions provided at the beginning of [Installing the Display Assembly](#).

10.9 Removing the Display Latch

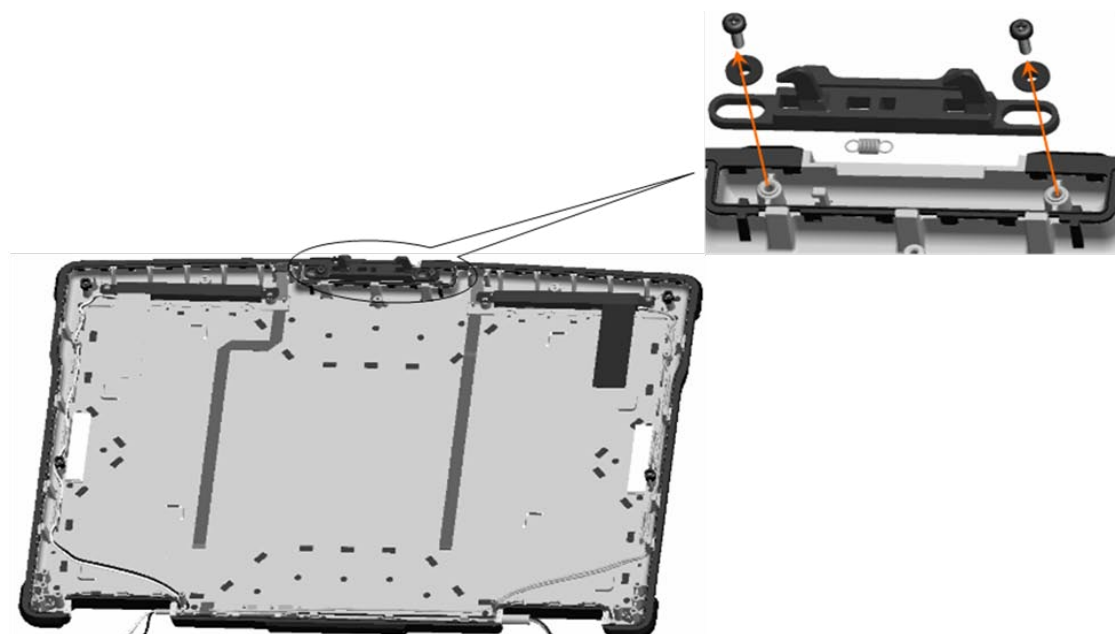
 **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

 **NOTE:** Replacing the display latch does not require removing the display assembly from the base.

 **NOTE:** Replacement keyboard/palm rest overlays are not included in the latch service kits.

1. Follow the procedures in [Before You Begin](#).
2. Turn the computer top-side up, and then open the display all the way (160 degrees).
3. Remove the display bezel (see [Removing the Display Bezel](#)).
4. Remove the 2 latch screws and washers.




5. Remove the latch spring from the top cover and slide the latch out of the top cover.

10.10 Installing the Display Latch

1. Install the latch and secure with the 2 screws and washers. Do not fully tighten screws at this time.
2. Apply the spring to the latch, and then to the top cover hook.
3. Tighten the 2 screws installed in **step 1**.
4. Check the latch movement.
5. Install the display bezel (see [Installing the Display Bezel](#)).

11 Internal Card with Bluetooth® Wireless Technology


 **CAUTION:** Before working inside your computer, follow the safety instructions in your *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching a connector on the back panel of the computer.

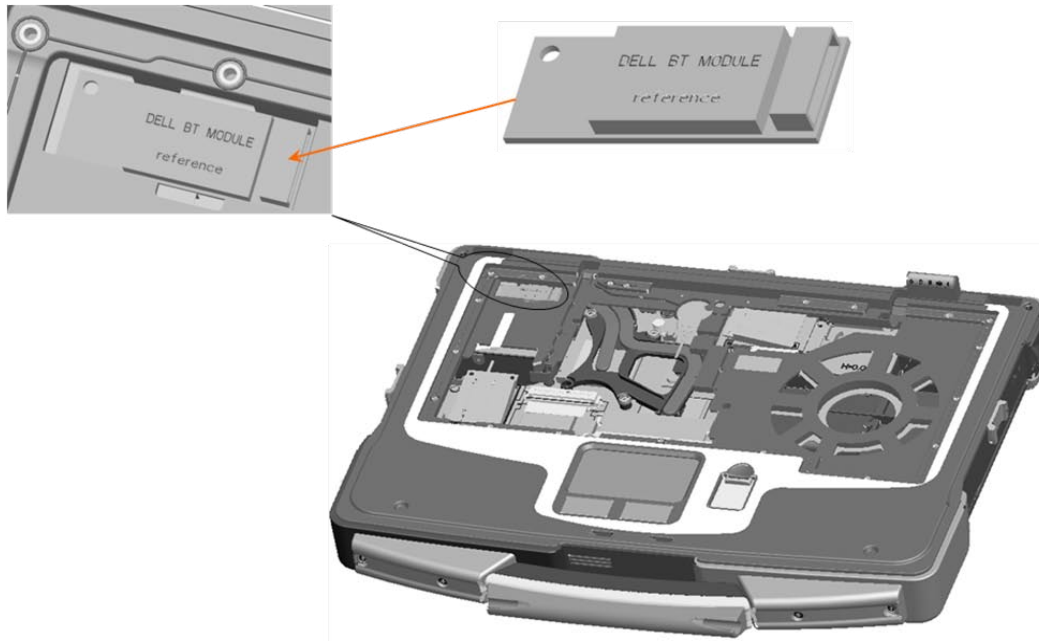
 **NOTICE:** To avoid damaging the system board, you must remove the main battery before you begin working inside the computer (see [Before Working Inside Your Computer](#)).

11.1 Removing the Bluetooth® Wireless Card

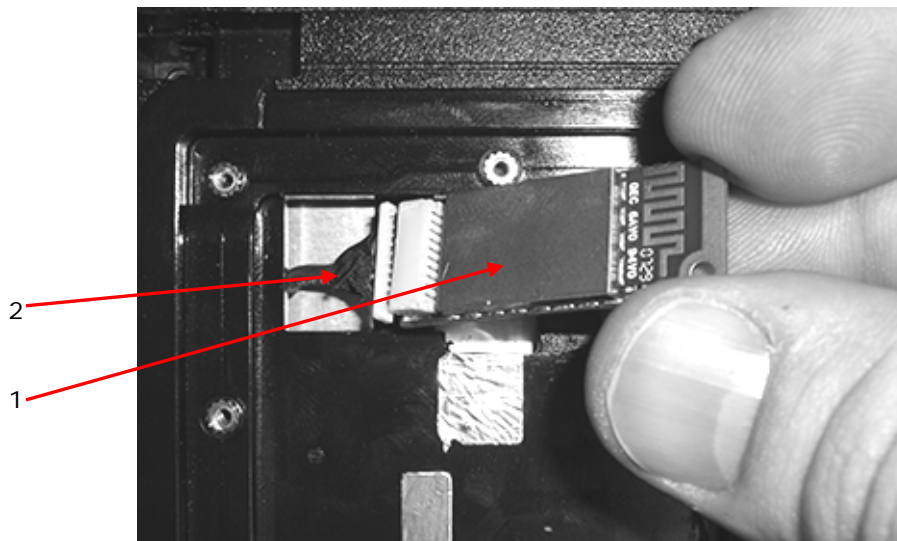
1. Follow the procedures in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).

 **NOTICE:** Be careful when removing the card to avoid damaging the card, card cable, or surrounding components.

4. Use the plastic scribe to gently pry the card out of its compartment. The card is located upside-down in the compartment.



5. Lift the card from the compartment, ensuring that you do not pull on the card cable with excessive force.



1	Wireless card	2	Wireless card cable
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6. Disconnect the card from the cable and remove the card from the computer.


11.2 Installing the Bluetooth® Wireless Card

1. Grasp the Bluetooth Wireless cable, and gently extend it.
2. Connect the Bluetooth Wireless Card to the cable.
3. Gently insert the card into its compartment.


4. Install the keyboard (see [Keyboards](#)).
5. Install the hinge cover (see [Installing the Hinge Cover](#)).


12 WWAN, FCM & SIM Cards


12.1 Mobile Broadband Network (WWAN) Card

 **NOTE:** Mobile Broadband network cards may not be available in certain regions.


If you ordered a Mobile Broadband network card with your computer, the card is already installed.


 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).


 **NOTE:** The WWAN card slot is located on the left center, next to the keyboard connector.

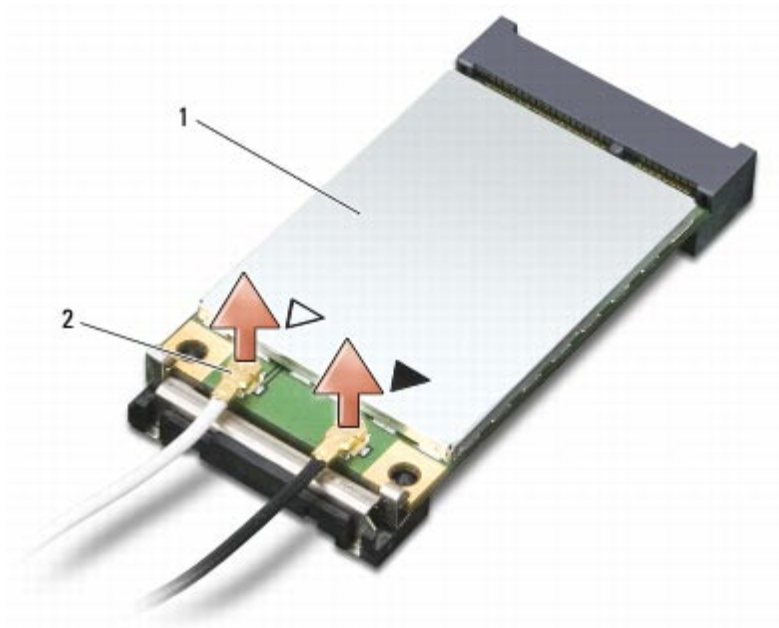
1. Follow the procedures in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).

 **NOTICE:** To prevent damage to the connector, do not use tools to release the securing tabs.

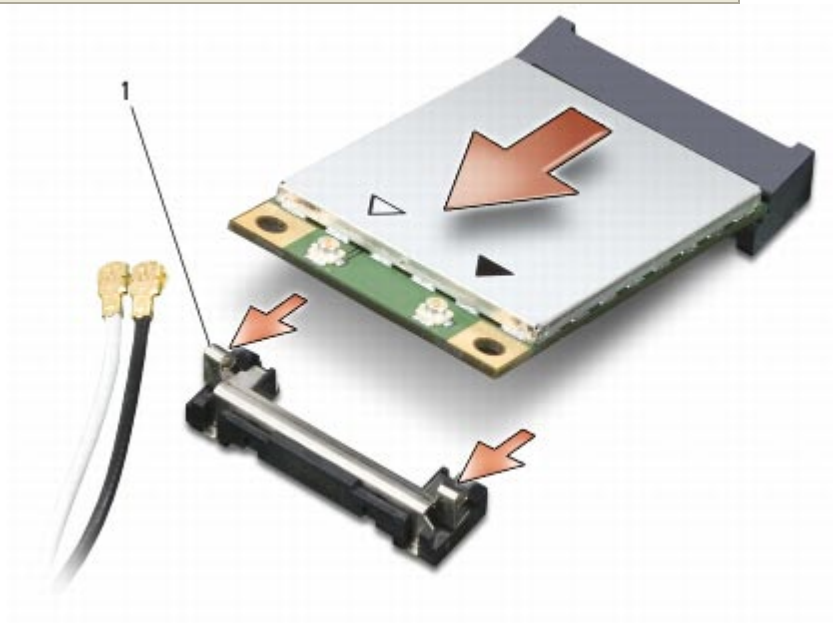
 **NOTICE:** Do not insert a WLAN card into the Mobile Broadband network card connector. The WWAN slot is marked WWAN/FCM.

4. If a Mobile Broadband network card is not already installed, go to **step 5**. If you are replacing a Mobile Broadband network card, remove the existing card:
 - a. Disconnect the antenna cables from the Mobile Broadband network card.
 - b. Release the card by pushing the metal securing tabs away from the card until the card pops up slightly.
 - c. Slide the card at a 45-degree angle out of its connector.

 **NOTICE:** The connectors are keyed to ensure correct insertion. If you feel resistance, check the connectors and realign the card.

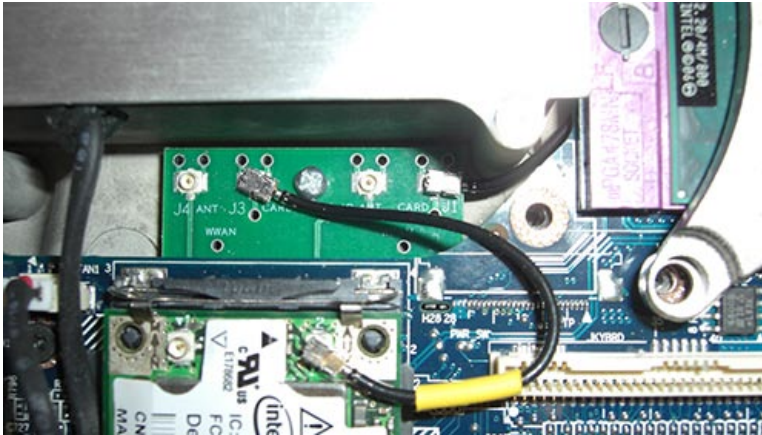


- | | | | |
|---|-----------|---|--------------------------|
| 1 | WWAN card | 2 | antenna cable connectors |
|---|-----------|---|--------------------------|



- | | |
|---|-------------------------|
| 1 | metal securing tabs (2) |
|---|-------------------------|

WWAN with Passthu Board & Passthru Cable



5. To install a Mobile Broadband network card:

- a. Move any antenna cables out of the way to make space for the Mobile Broadband network card.



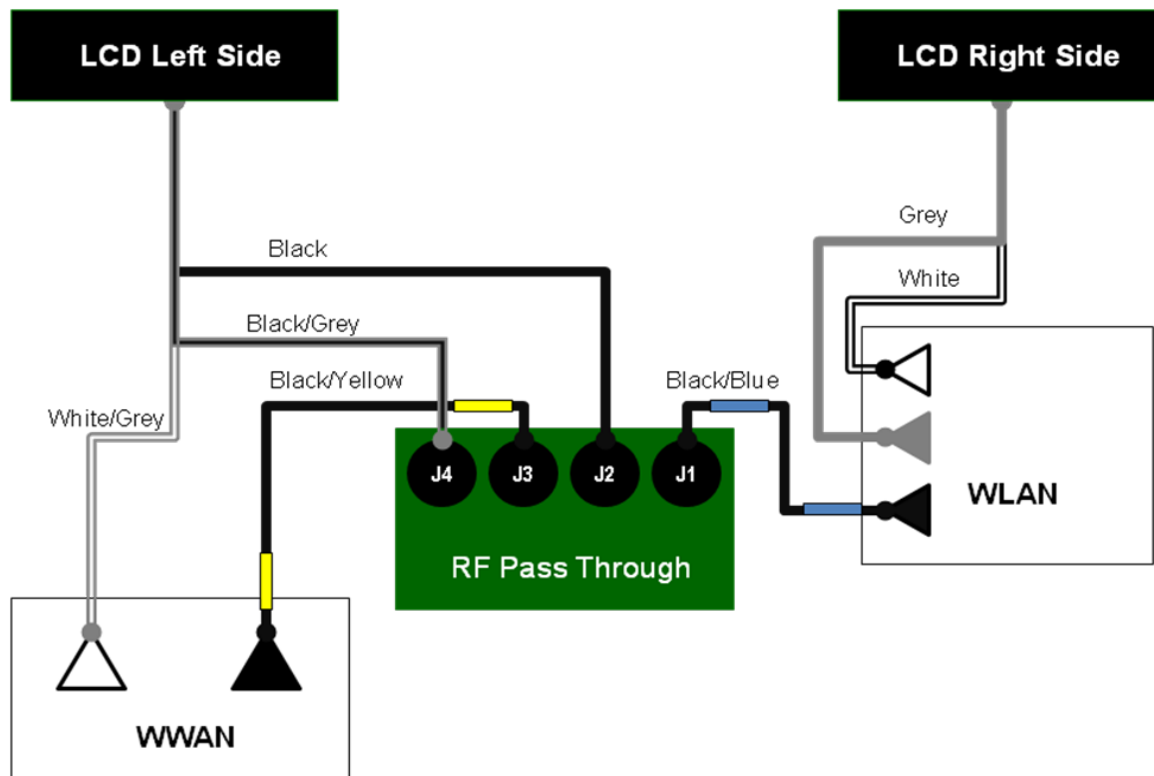
NOTICE: To avoid damaging the Mobile Broadband network card, never place cables on top of or under the card and ensure that you route the cables properly.

- b. Insert the card into the system board connector at a 45-degree angle, and press the card into the metal securing tabs until you feel a click.



NOTE: For more specific information about which cable to connect to which connector, see the documentation that came with your Mobile Broadband network card.

6. Connect the antenna cables to the Mobile Broadband network card, ensuring that you route the cables correctly.



Wireless Block Diagram

7. Install the keyboard (see [Keyboards](#)).
8. Install the hinge cover (see [Installing the Hinge Cover](#)).

12.2 Flash Cache Module

CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

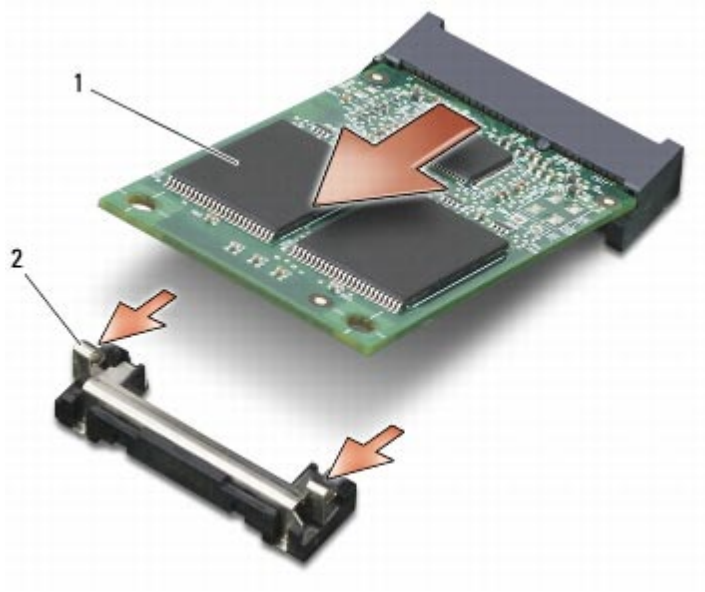
NOTE: The WWAN card slot is located on the left center, next to the keyboard connector. The FCM is installed into the WWAN card slot.

12.2.1 Removing the Flash Cache Module

1. Follow the procedures in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).

NOTE: If you leave the area, ground yourself again when you return to the computer.

4. Release the FCM by pushing the metal securing brackets away from the card until the card pops up slightly.
5. Remove the FCM.



1	FCM Card	2	metal securing tabs (2)
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12.2.2 Installing the Flash Cache Module

- NOTICE:** Install the FCM in the WWAN/FCM slot. Do not install an FCM in the WLAN card slot. Doing so may cause damage to your computer.
- NOTICE:** Ensure that the antenna cables remain out of the way. The antenna cables need to be routed above the WWAN/FCM slot in the area near the fan cable connector.

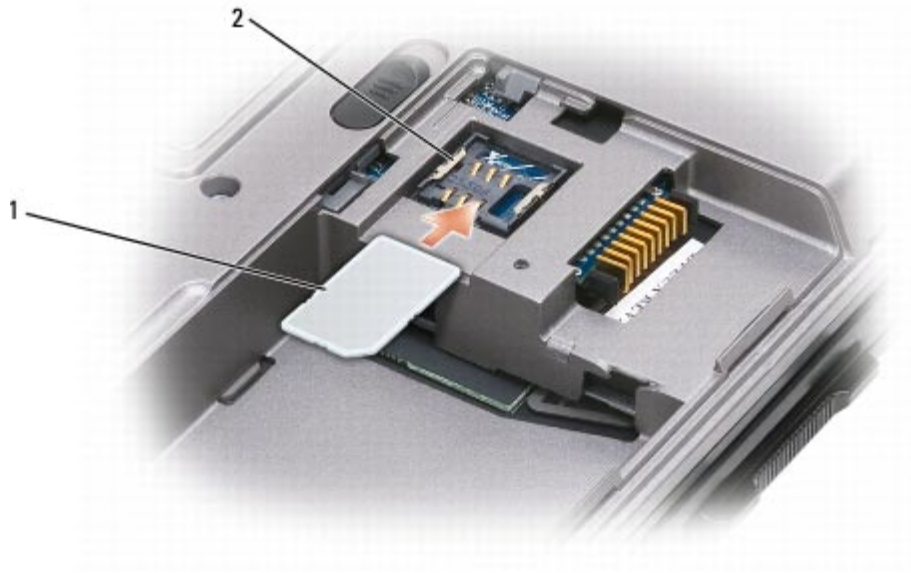


1. To install a FCM card:
 - a. Move any antenna cables out of the way to make space for the FCM card.
- ➡ **NOTICE:** To avoid damaging the FCM card, never place cables on top of or under the card and ensure that you route the cables properly.
 - b. Insert the card into the system board connector at a 45-degree angle, and press the card into the metal securing tabs until you feel a click.
2. Install the keyboard (see [Keyboards](#)).
3. Install the hinge cover (see [Installing the Hinge Cover](#)).

12.3 Subscriber Identity Module (SIM) Card

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

1. Follow the procedures in [Before You Begin](#).



1	SIM card	2	metal brackets (2)
---	----------	---	--------------------

➡ **NOTICE:** To prevent electrostatic discharge (ESD), hold the card in your hand before you insert or remove the card. Do not touch the SIM card connectors.

2. Turn the computer upside-down with the front of the computer facing you.
3. Ensure that the battery is removed (see [Before Working Inside Your Computer](#)).
4. With the cut-off corner on the card facing away from the card compartment, insert the SIM card into the compartment (as shown) so that it slides under the metal bracket on the sides.
5. Replace the battery and battery cover.

13 Coin-Cell Battery

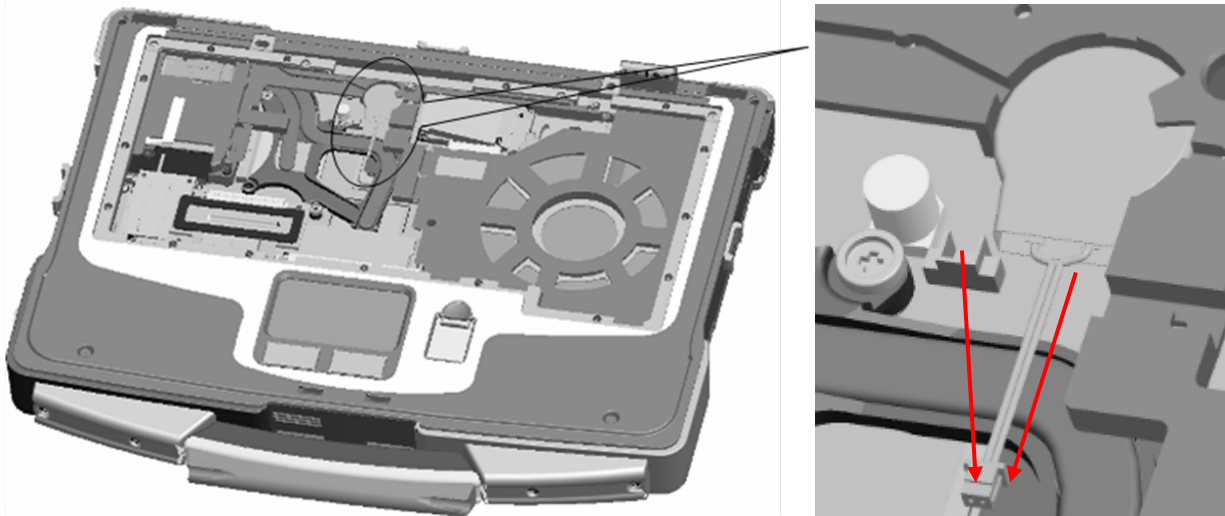
⚠ **CAUTION:** Before working inside your computer, follow the safety instructions in your *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

➡ **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching a connector on the back panel of the computer.

➡ **NOTICE:** To avoid damaging the system board, you must remove the main battery before you begin working inside the computer.

13.1 Removing the Coin-Cell Battery

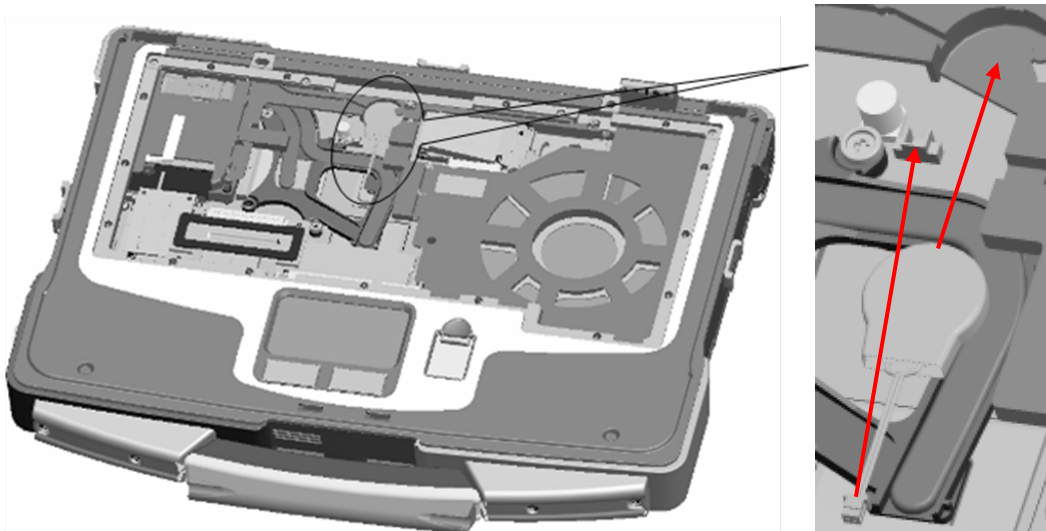
1. Follow the procedures in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).



4. Remove the battery cable connector from the connector on the system board.
5. Being careful not to break the plastic, lift the battery slightly and slide the battery out from under the plastic tab until it has been removed from the battery compartment.

13.2 Installing the Coin-Cell Battery

1. Being careful not to break the plastic, lift the plastic tab slightly, and gently “toe” in the coin-cell battery at an angle and push into the battery compartment.



2. Connect the battery cable connector to the connector on the system board.
3. Install the keyboard (see [Keyboards](#)).
4. Install the hinge cover (see [Installing the Hinge Cover](#)).
5. Install the battery.

14 Palm Rest

CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

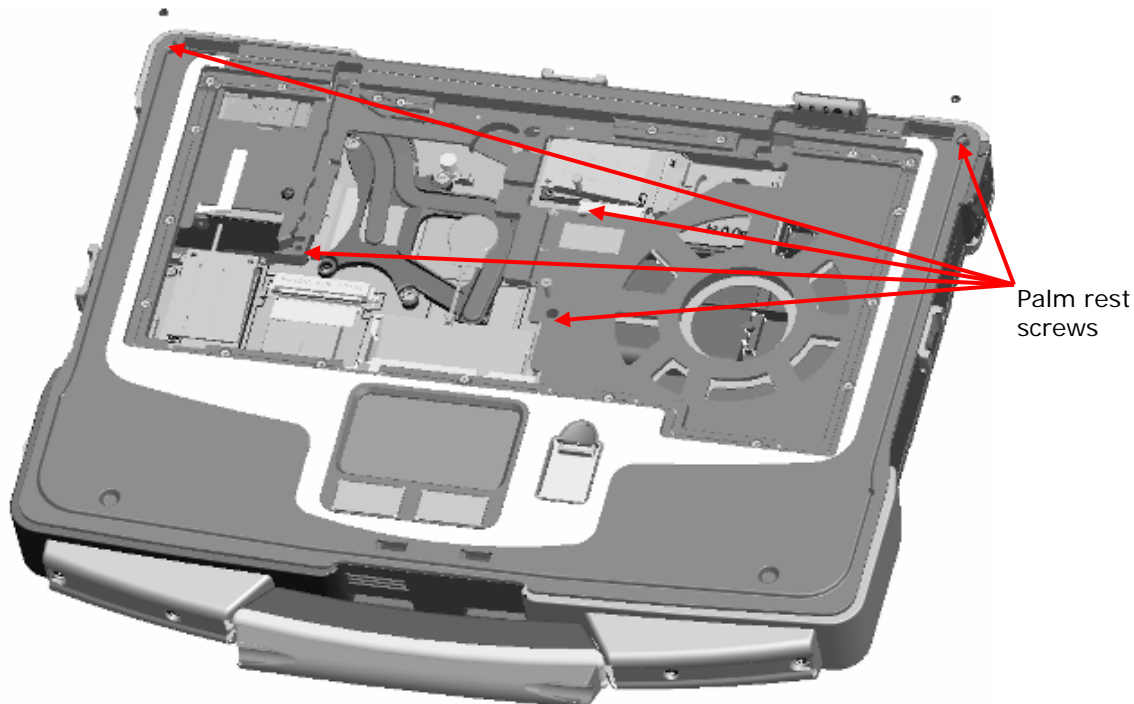
NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

14.1 Removing the Palm Rest


1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Disconnect the coin-cell battery from the system board (see [Coin-Cell Battery](#)).


NOTE: You can leave the coin-cell battery in place (on the palm rest) unless you are installing a replacement palm rest, in which case you need to remove the coin-cell battery and place it in the replacement palm rest.

7. Remove the five screws from the top of the palm rest.




8. Turn the computer upside-down.

 **NOTE:** Before proceeding, ensure that the main battery has been removed from the system (see Before Working Inside Your Computer). One of the palm rest screws is located in the battery bay.

 **NOTE:** Open the Docking Door. Two of the palm rest screws are located beneath this door (see Removing the Docking Door.)

9. Remove the 11 screws that secure the palm rest.



 **NOTICE:** Carefully separate the palm rest from the base to avoid damage to the palm rest.

10. Turn the computer top-side up, slightly raise the palm rest, and then disconnect the touch-pad cable connector from the system board.
11. Continue to raise the palm rest, and then disconnect the USB control cable from the system board. Remove the palm rest.



Touch pad connector

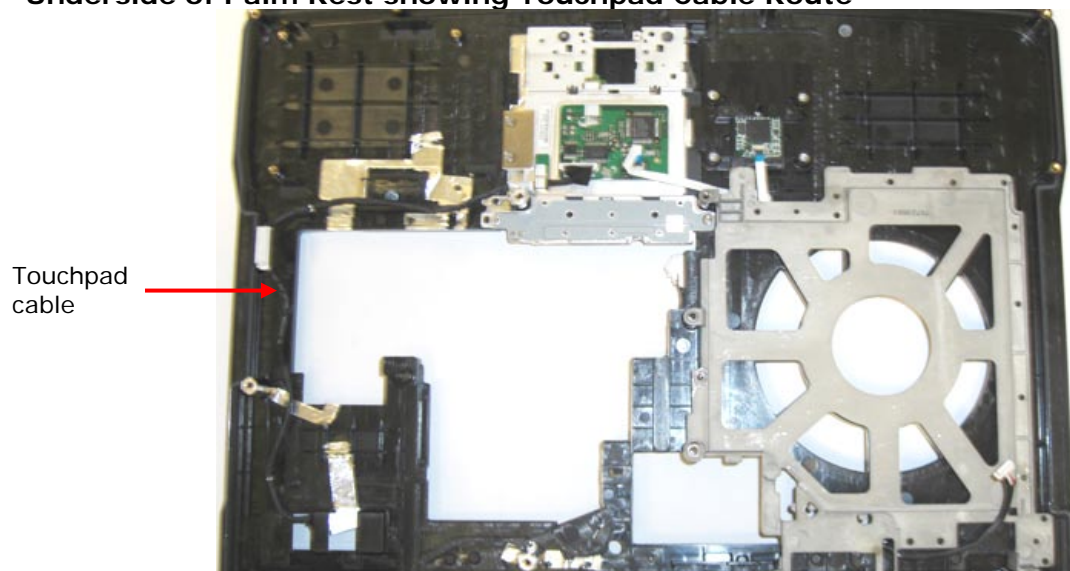
1	touch pad connector
---	---------------------

14.2 Installing the Palm Rest

NOTICE: When reinstalling the palm rest, ensure that you reconnect the USB cable to the IO dash board, and then reconnect the touch pad cable connector to the system board before replacing the palm rest screws.

NOTE: If you are replacing the palm rest, remove the USB Control cable from the original palm rest and route the same way in the new palm rest.

Underside of Palm Rest showing Touchpad Cable Route




Touchpad cable


1. Install the 5 top-side screws.
2. Turn the system over.
3. Install the 11 bottom screws.
4. Reconnect the coin-cell battery (see [Coin-Cell Battery](#)).

5. Replace the display assembly (see [Installing the Display Assembly](#)).
6. Replace the keyboard (see [Keyboards](#)).
7. Replace the XBay device (see [XBay Devices](#)).
8. Replace the hinge cover (see [Installing the Hinge Cover](#)).
9. Install the battery.

15 Wireless Local Area Network (WLAN) Cards

If you ordered a WLAN card with your computer, the card is already installed.

 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).


15.1 Removing the WLAN Card

1. Follow the procedures in [Before You Begin](#).
6. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove the keyboard (see [Keyboards](#)).
4. Remove the display assembly (see [Removing the Display Assembly](#)).
5. Remove the palm rest (see [Removing the Palm Rest](#)).

 **NOTICE:** To prevent damage to the connector, do not use tools to release the securing tabs.

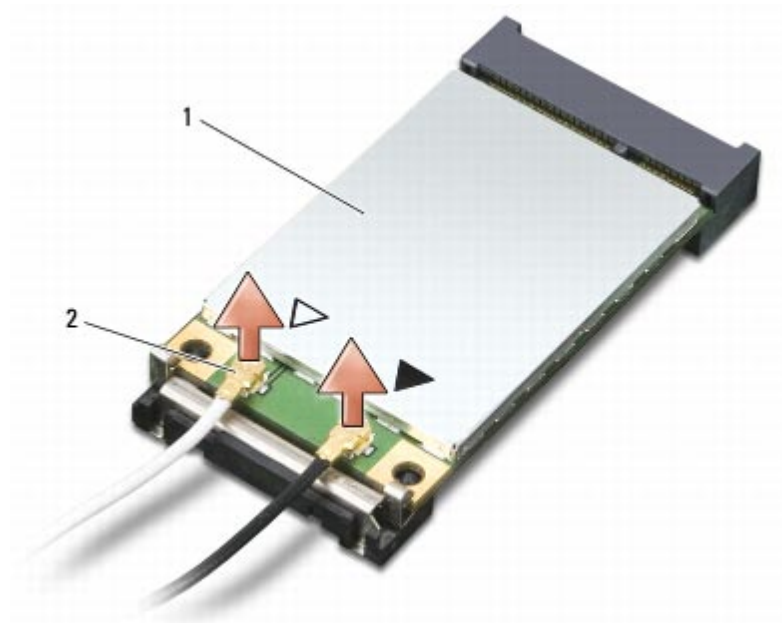
6. If a WLAN card is not already installed, go to **step 5**. If you are replacing a WLAN card, remove the existing card:

- a. Disconnect the antenna cables from the card.

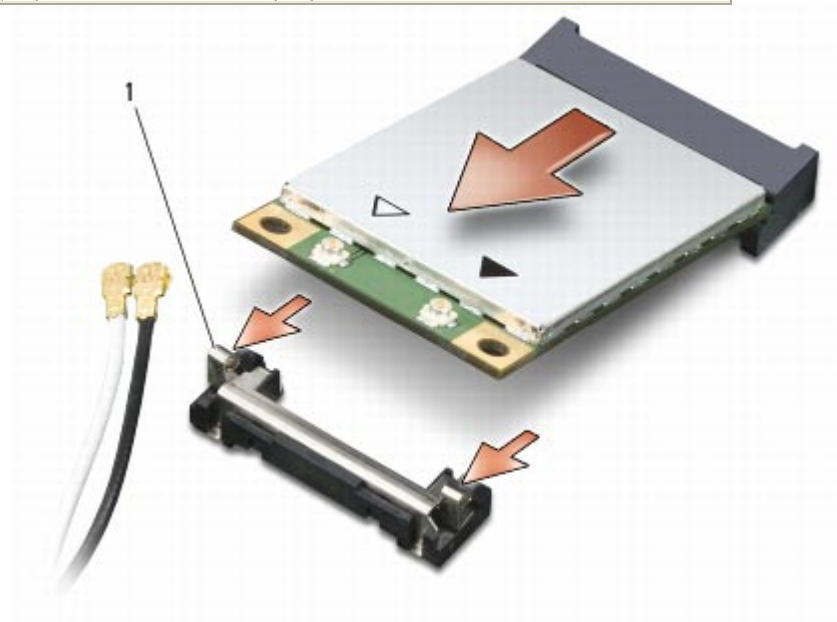
 **NOTE:** The WLAN card may have two or three antenna connectors, depending on the type of card you have.

- b. Release the card by pushing the metal securing tabs away from the card until the card pops up slightly.
- c. Slide the card at a 45-degree angle out of its connector.

- ➡ **NOTICE:** The card connector is keyed to ensure correct insertion. If you feel resistance, check the connector and realign the card.
- ➡ **NOTICE:** Do not insert a Mobile Broadband network (WWAN) card into the WLAN card connector.



1	WLAN card	2	antenna cable connectors
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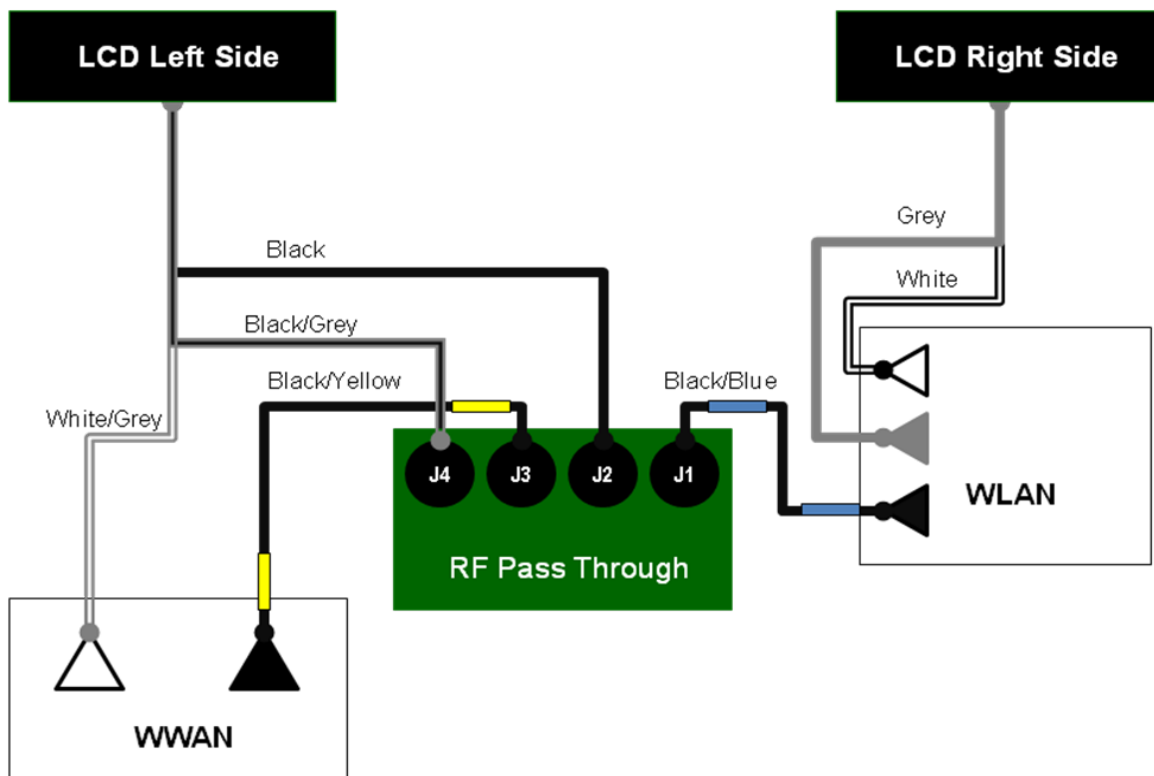
1	metal securing tabs (2)
---	-------------------------

- ➡ **NOTICE:** To avoid damaging the WLAN card, never place cables on top of or under the card.



15.2 Installing the WLAN Card

1. Move any antenna cables out of the way to make space for the WLAN card.
2. Insert the WLAN card into the system board connector at a 45-degree angle, and press the card into the metal securing tabs until you feel a click.
3. Connect the antenna cables to the WLAN card, ensuring that you route the cables correctly.



Wireless Block Diagram

NOTE: For more specific information about which cable to connect to which connector, see the documentation that came with your WLAN card.

4. Replace the palm rest (see [Installing the Palm Rest](#)).
5. Replace the display assembly (see [Installing the Display Assembly](#)).
6. Replace the keyboard (see [Keyboards](#)).
7. Replace the hinge cover (see [Installing the Hinge Cover](#)).

16 Modem



CAUTION: Before you begin the following procedure, see the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.



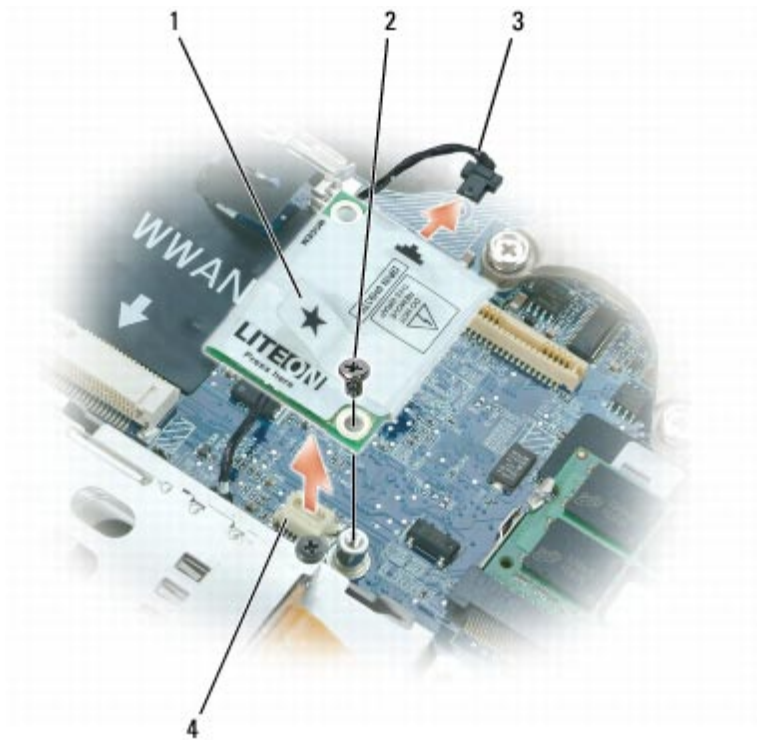
NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).




NOTICE: To avoid damaging the system board, you must remove the main battery before you begin working inside the computer (see [Before Working Inside Your Computer](#)).

16.1 Removing the Modem

1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the palm rest (see [Removing the Palm Rest](#)).
7. Remove the M2 x 3-mm screw that attaches the modem to the system board.
8. Pull up on the pull-tab to disconnect the modem from the connector on the system board.




1	modem pull-tab	2	M2 x 3-mm screw	3	modem cable
4	system board connector				

 **NOTICE:** Do not disconnect the modem cable from the system board.

9. Disconnect the modem cable from the modem.

16.2 Installing the Modem

 **NOTE:** When replacing the modem, it is easier to connect the modem cable to the modem *before* you press the modem into the system board connector.

1. Connect the modem cable to the modem.
2. Connect the modem to the connector on the system board.
3. Install the M2 x 3mm screw that attaches the modem to the system board.
4. Replace the palm rest (see [Installing the Palm Rest](#)).
5. Replace the display assembly (see [Installing the Display Assembly](#)).
6. Replace the keyboard (see [Keyboards](#)).
7. Replace the hinge cover (see [Installing the Hinge Cover](#)).

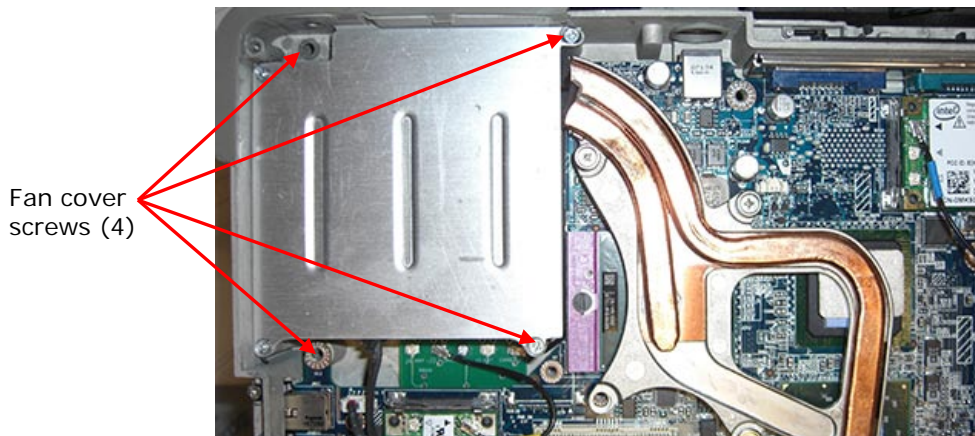
17 Processor Thermal-Cooling Assembly

17.1 Removing the Processor Thermal-Cooling Assembly

CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the palm rest (see [Removing the Palm Rest](#)).
7. Remove the fan cover by removing the 4 screws that secure the fan cover, and then lift the fan cover out of the base.



8. Remove, in consecutive order, the three screws labeled "1" through "3," on the assembly.



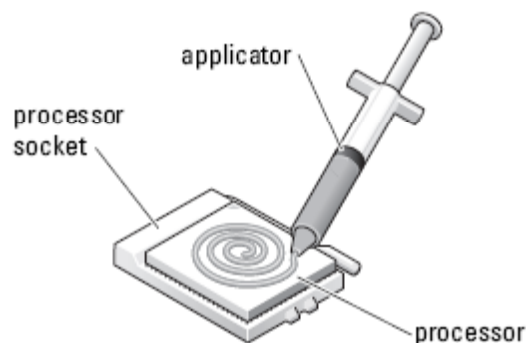
9. Lift the processor thermal-cooling assembly out of the computer.

17.2 Installing the Processor Thermal-Cooling Assembly

CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To prevent static damage to components inside your computer, discharge static electricity from your body before you touch any of your computer's electronic components. You can do so by touching an unpainted metal surface.

1. If you are installing the original processor thermal-cooling assembly, skip to **step 5**; otherwise continue to the next step.
2. Clean the heat sink. Use the cleaning pad provided with the processor thermal-cooling assembly kit to clean the area between the 4 captive screws.
3. Apply the thermal grease. Follow the instructions provided with the processor thermal-cooling assembly kit when using the syringe to apply thermal grease in a spiral pattern to the processor thermal-cooling assembly.



4. Check the motherboard. Check the system board for any thermal pads on the large IC's next to the processor. Remove any pads on top of the IC's. These came from the original

processor thermal-cooling assembly. The new processor thermal-cooling assembly has new pads already installed.

5. Install the heat sink. Place the processor thermal-cooling assembly on the system board.
6. Tighten in consecutive order the four captive screws, labeled "1" through "4," on the thermal-cooling assembly.
7. Replace the fan cover and secure with the 4 screws.
8. Replace the palm rest (see [Installing the Palm Rest](#)).



NOTE: Ensure that you reconnect the coin-cell battery (see [Coin-Cell Battery](#)) before you replace the keyboard.

9. Replace the display assembly (see [Installing the Display Assembly](#)).
10. Replace the keyboard (see [Keyboards](#)).
11. Replace the media bay device (see [XBay Devices](#)).
12. Replace the hinge cover (see [Installing the Hinge Cover](#)).
13. Replace the battery.

18 Processor

18.1 Removing the Processor



CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.



NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).



NOTICE: To prevent intermittent contact between the ZIF-socket cam screw and the processor when removing or replacing the processor, press, to apply slight pressure to the center of the processor while turning the cam screw.



NOTICE: To avoid damage to the processor, hold the screwdriver so that it is perpendicular to the processor when turning the cam screw.

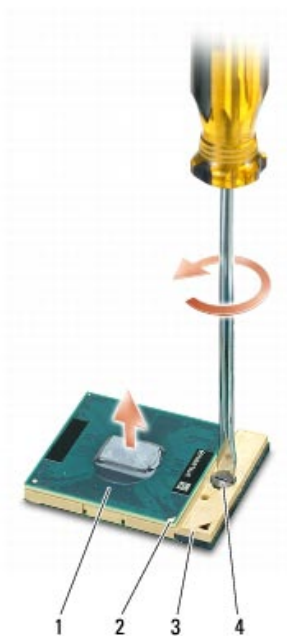
1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the palm rest (see [Removing the Palm Rest](#)).

7. Remove the processor thermal-cooling assembly (see [Removing the Processor Thermal-Cooling Assembly](#)).

NOTICE: When removing the processor, pull it straight up. Be careful not to bend the pins on the processor.

8. To loosen the ZIF socket, use a small, flat-blade screwdriver and rotate the ZIF-socket cam screw counterclockwise until it comes to the cam stop.

The ZIF-socket cam screw secures the processor to the system board. Take note of the arrow on the ZIF-socket cam screw.



1	processor	2	pin-1 corner of processor	3	ZIF socket
4	ZIF-socket cam screw				

9. Use a processor extraction tool to remove the processor.

18.2 Installing the Processor

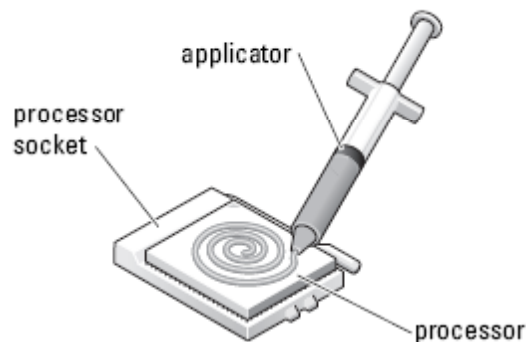
NOTICE: Ensure that the cam lock is in the fully open position before seating the processor. Seating the processor properly in the ZIF socket does not require force.

NOTICE: A processor that is not properly seated can result in an intermittent connection or permanent damage to the processor and ZIF socket.

1. Align the pin-1 corner of the processor so that it points to the triangle on the system board, and insert the processor into the ZIF socket.

When the processor is correctly seated, all four corners are aligned at the same height. If one or more corners of the processor are higher than the others, the processor is not seated correctly.

- ➡ **NOTICE:** To prevent intermittent contact between the ZIF-socket cam screw and the processor when removing or replacing the processor, press to apply slight pressure to the center of the processor while turning the cam screw.
- 2. Tighten the ZIF socket by turning the cam screw clockwise to secure the processor to the system board.
- ➡ **NOTICE:** If you are installing the original processor, skip to **step 5**. To install a new processor, continue with **step 3**.
- 3. Clean the heat sink. Use the cleaning pad provided with the processor kit to remove any old thermal grease between the 3 captive screws.
- 4. Apply the thermal grease. Follow the instructions provided with the processor kit, to use the syringe to apply thermal grease in a spiral pattern to the processor thermal-cooling assembly.



- 5. Replace the processor thermal-cooling assembly (see [Installing the Processor Thermal-Cooling Assembly](#)).
- 6. Replace the palm rest (see [Installing the Palm Rest](#)).

🔧 **NOTE:** Ensure that you reconnect the coin-cell battery (see [Coin-Cell Battery](#)) before you replace the keyboard. [Installing the Coin-Cell Battery](#)

- 7. Replace the display assembly (see [Installing the Display Assembly](#)).
- 8. Replace the keyboard (see [Keyboards](#)).
- 9. Replace the media bay device (see [XBay Devices](#)).
- 10. Replace the hinge cover (see [Installing the Hinge Cover](#)).
- 11. Replace the battery.

19 PC Card Reader

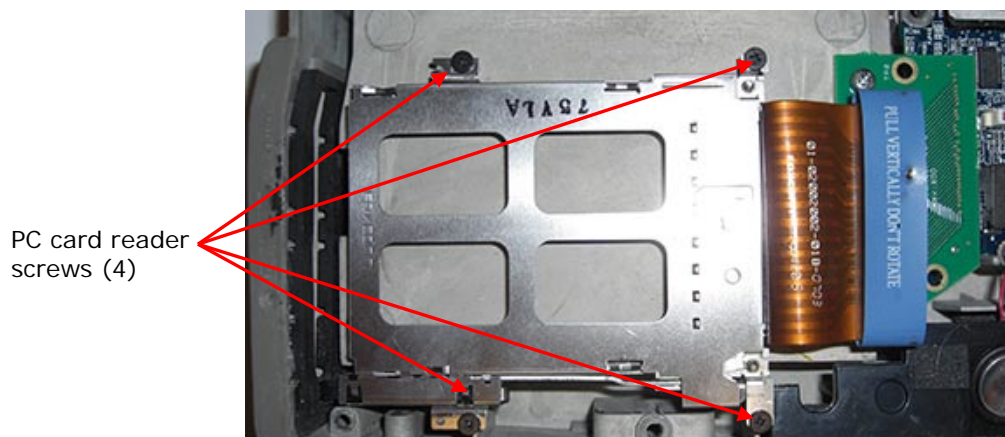
⚠ **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

➡ **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by

periodically touching an unpainted metal surface (such as a connector on the back of the computer).

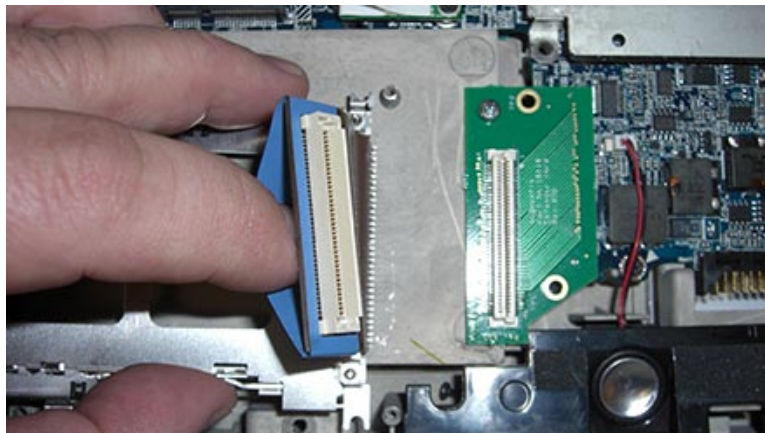
19.1 Removing the PC Card Cage

1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the palm rest (see [Removing the Palm Rest](#)).
7. Remove the four M2 x 3-mm screws that secure the PC Card reader to the computer.




NOTICE: To avoid damaging the PC Card reader connector, do not rotate or rock the connector as you remove it. Use firm and even pressure to lift the pull-tab vertically.

8. Use the pull-tab to disconnect the PC Card reader connector from the PC Card interface board.




9. Remove the PC Card Reader assembly.


-  **NOTICE:** If you are servicing the system board, RF Passthru board or bottom chassis, continue with next steps to remove the PC Card interface board.

10. Remove the screw and then disconnect the interface board connector from the system board. Remove the PC Card interface board.

19.2 Installing the PC Card Cage


-  **NOTICE:** If you removed the PC Card Reader only, skip to **step 2**. If you also removed the PC Card interface board, start with **step 1**.


1. Install the PC Card interface. Connect the PC Card interface board to the system board and secure with the screw to the bottom chassis.
2. Install the PC Card cage. Connect the PC Card Reader cable to the interface board. Install the four M2x3-mm screws.
3. Replace the palm rest (see [Installing the Palm Rest](#)).

-  **NOTE:** Ensure that you reconnect the coin-cell battery (see [Coin-Cell Battery](#)) before you replace the keyboard.

4. Replace the display assembly (see [Installing the Display Assembly](#)).
5. Replace the keyboard (see [Keyboards](#)).
6. Replace the media bay device (see [XBay Devices](#)).
7. Replace the hinge cover (see [Installing the Hinge Cover](#)).
8. Replace the battery.

20 Speaker

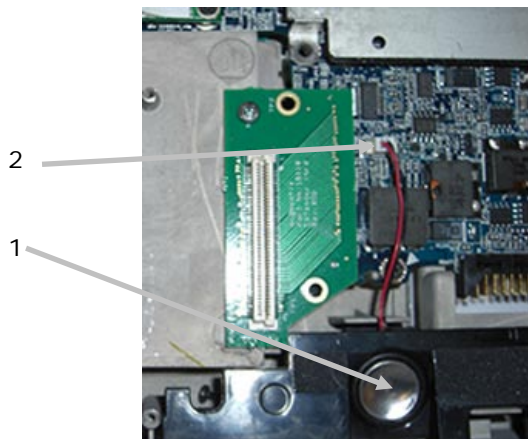
-  **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide and in the XFR D630 User's Guide*.

-  **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).


20.1 Removing the Speaker

1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).

6. Remove the palm rest (see [Removing the Palm Rest](#)).
7. Disconnect the speaker connector from the system board.




1	Speaker	2	Speaker connector
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 **NOTICE:** Handle the speakers with care to avoid damaging them.

8. Pull the speaker straight up and out of the base.


20.2 Installing the Speaker


1. Install the speaker in the base and attach the speaker cable to the system board.
2. Replace the palm rest (see [Installing the Palm Rest](#)).

 **NOTE:** Ensure that you reconnect the coin-cell battery (see [Coin-Cell Battery](#)) before you replace the keyboard.

3. Replace the display assembly (see [Installing the Display Assembly](#)).
4. Replace the keyboard (see [Keyboards](#)).
5. Replace the media bay device (see [XBay Devices](#)).
6. Replace the hinge cover (see [Installing the Hinge Cover](#)).
7. Replace the battery.

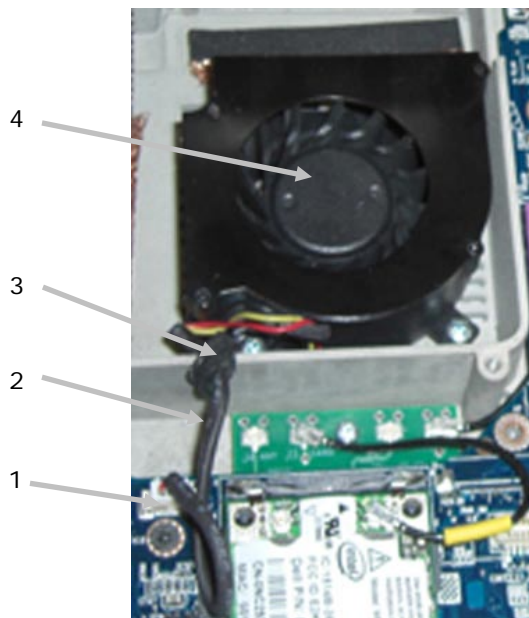
21 Fan

 **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

21.1 Removing the Fan

1. Follow the instructions in [Before You Begin](#).
2. Remove the hinge cover (see [Removing the Hinge Cover](#)).
3. Remove any installed media bay device (see [XBay Devices](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove the display assembly (see [Removing the Display Assembly](#)).
6. Remove the palm rest (see [Removing the Palm Rest](#)).
7. Remove the processor thermal-cooling assembly (see [Removing the Processor Thermal-Cooling Assembly](#)).
8. Remove the 3 M3 x 4-mm screws that secure the fan to the base.



1	Fan connector	2	Fan cable	3	Fan cable grommet	4	Fan
---	---------------	---	-----------	---	-------------------	---	-----

9. Disconnect the fan cable from the system board and remove the fan.

21.2 Installing the Fan

1. Install the fan and attach to the base using the 3 M3 x 4-mm screws.
2. Attach the fan cable to the system board. Then attach the grommet on the fan cable to the cage enclosure.
3. Replace the processor thermal-cooling assembly (see [Installing the Processor Thermal-Cooling Assembly](#)).
4. Replace the palm rest (see [Installing the Palm Rest](#)).



NOTE: Ensure that you reconnect the coin-cell battery (see [Coin-Cell Battery](#)) before you replace the keyboard.

5. Replace the display assembly (see [Installing the Display Assembly](#)).
6. Replace the keyboard (see [Keyboards](#)).
7. Replace the media bay device (see [XBay Devices](#)).
8. Replace the hinge cover (see [Installing the Hinge Cover](#)).

22 System Board

22.1 Removing the System Board



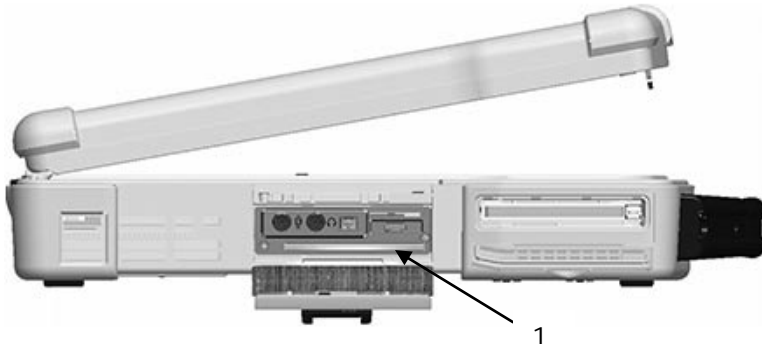
CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.



NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

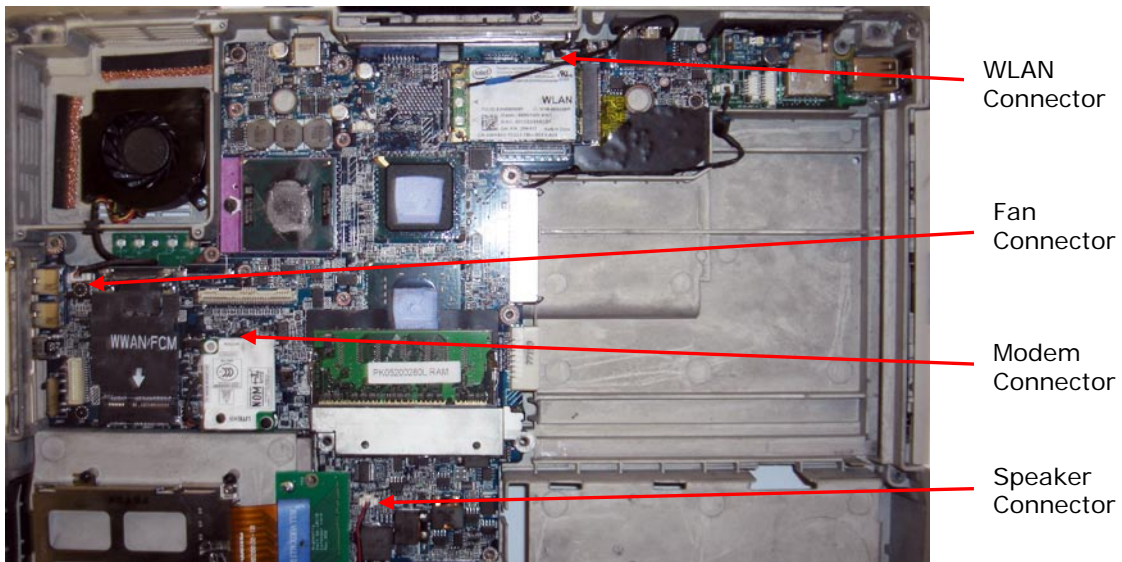
The system board's BIOS chip contains the Service Tag, which is also visible on a barcode label on the bottom of the computer. The replacement kit for the system board includes a CD that provides a utility for transferring the Service Tag to the replacement system board.

1. Follow the instructions in [Before You Begin](#).
2. Remove the hard disk drive (see [Hard Drive](#)).
3. Remove the hinge cover (see [Removing the Hinge Cover](#)).
4. Remove the keyboard (see [Keyboards](#)).
5. Remove any installed media bay device (see [XBay Devices](#)).
6. Remove the memory module(s) (see [Memory](#)).
7. Remove the palm rest (see [Removing the Palm Rest](#)).
8. Remove any installed wireless communications cards (see [WWAN, FCM & SIM Cards](#), [Wireless Local Area Network \(WLAN\) Cards](#), [Internal Card with Bluetooth® Wireless Technology](#)).
9. Remove the modem (see [Removing the Modem](#)).
9. Remove the speaker (see [Removing the Speaker](#)).
10. Remove the PC Card reader (see [Removing the PC Card Cage](#)).
11. Remove any installed smart cards or smart card blanks from the smart card slot.

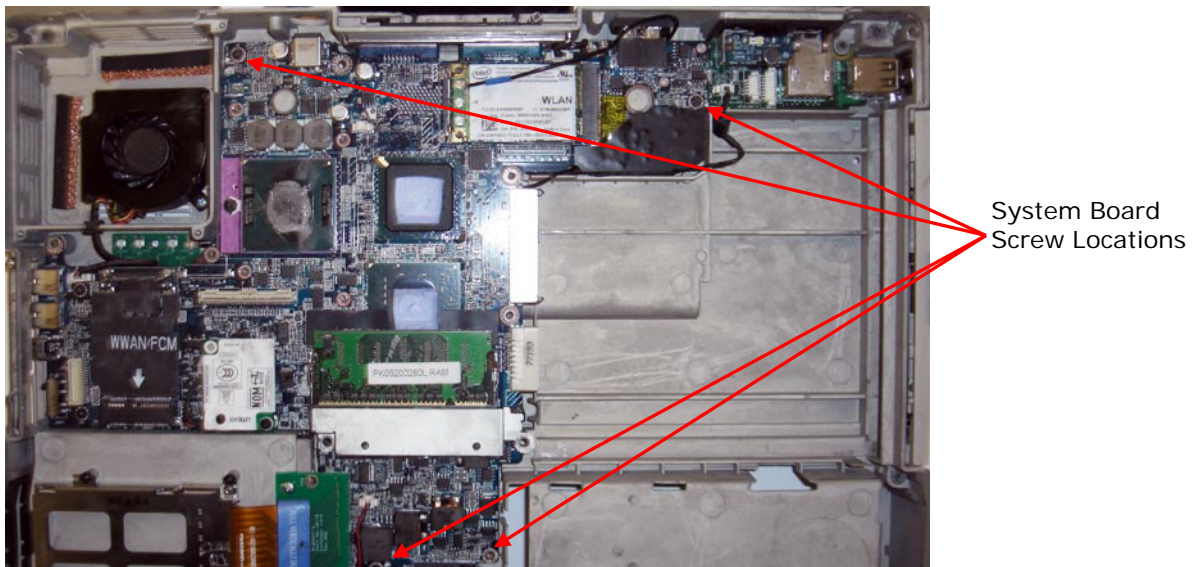


1	smart card slot
---	-----------------

12. Remove the processor thermal-cooling assembly (see [Removing the Processor Thermal-Cooling Assembly](#)).
13. Remove the processor (see [Removing the Processor](#)).
14. Disconnect the fan cable from the system board.
16. Disconnect the cables near the WLAN card and the modem connector from the system board.

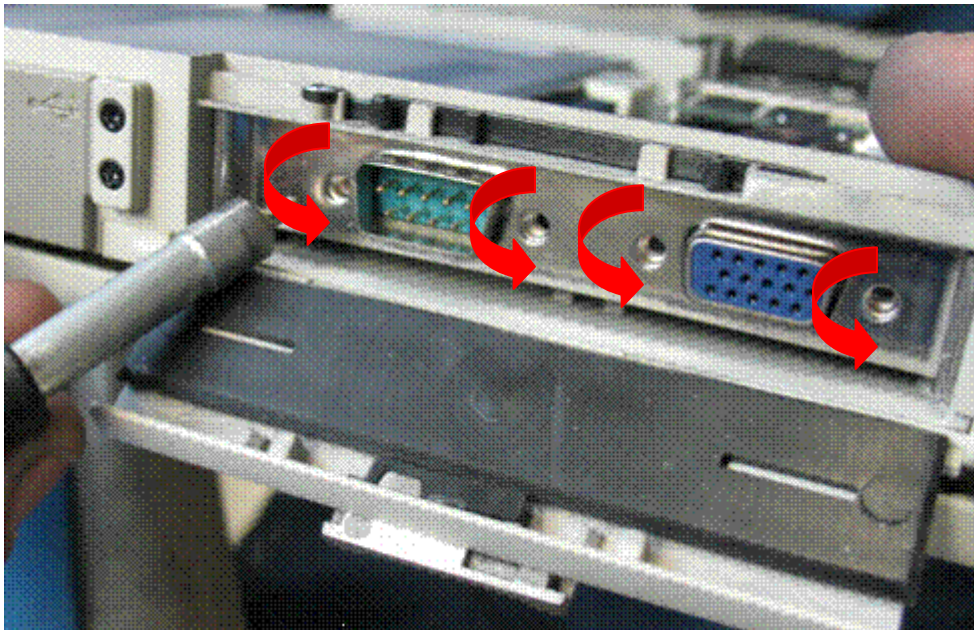


17. Remove the four M2.5 x 5-mm screws (labeled with silver triangles on the system board).



17. Remove the VGA Door from the rear panel of the notebook (see [Removing the VGA Door](#)).

18. Remove the four 5-mm hex screws on the back of the computer.



19. To remove the system board:

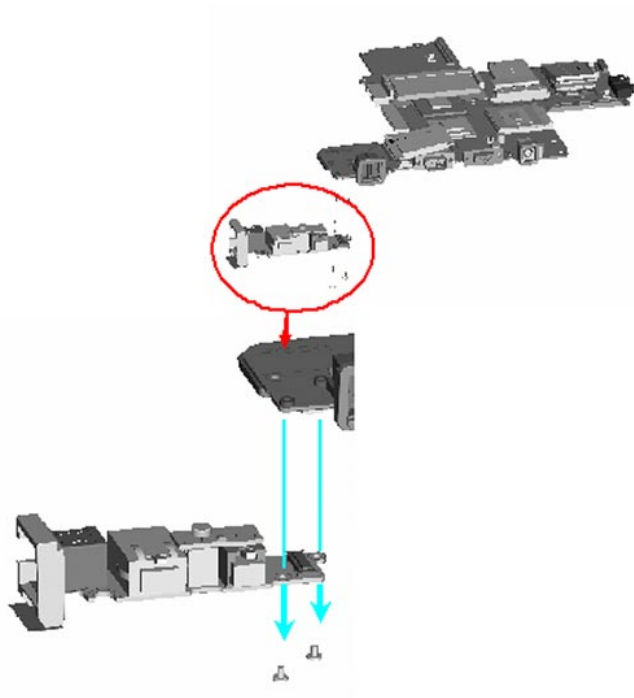
- a. Lift the lower corner near the speaker.
- b. Grasp the system board next to the I/O dash board and lift up until the USB connectors and the gasket on the right side clear the base.
- c. While keeping the system board raised on the right side, push on the VGA connector to clear the base. Pull the system board towards the front and right to clear the audio ports and Wi-Fi switch on the left side, and lift out of the base.

22.2 Installing the System Board

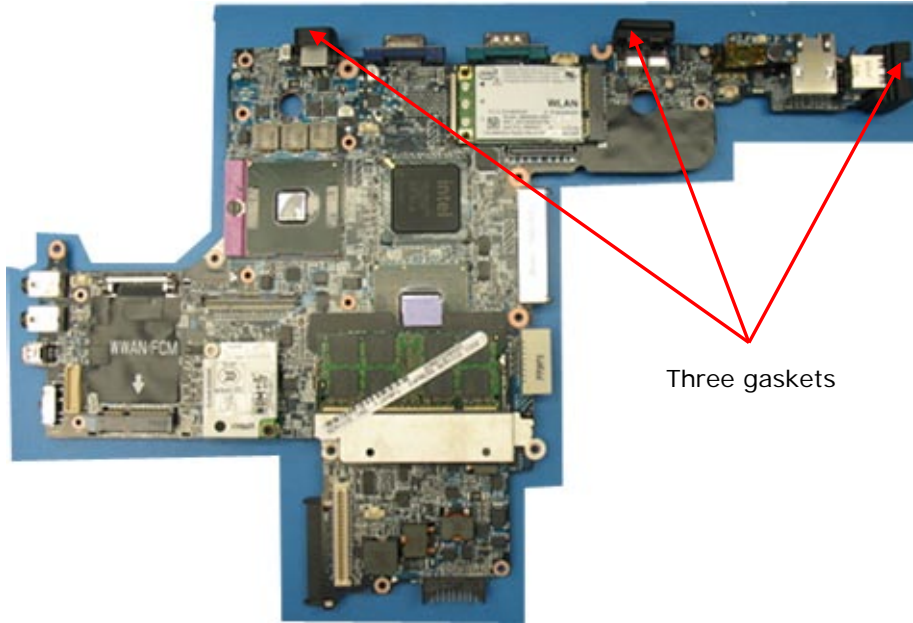


NOTE: If a new system board is installed, the kit includes a new system board and separate new IO dash board, with instructions.

1. If you are installing a new system board, follow these instructions:
 - a. Remove the 2 M2 x 3-mm screws on the bottom of the original system board to separate the system board from the IO dash board.
 - b. Use the 2 M2 x 3-mm screws just removed to secure the new IO dash board to the new system board.



- c. On the original system board, remove the 3 gaskets from the power port, rear USB port and side USB port.



Three gaskets

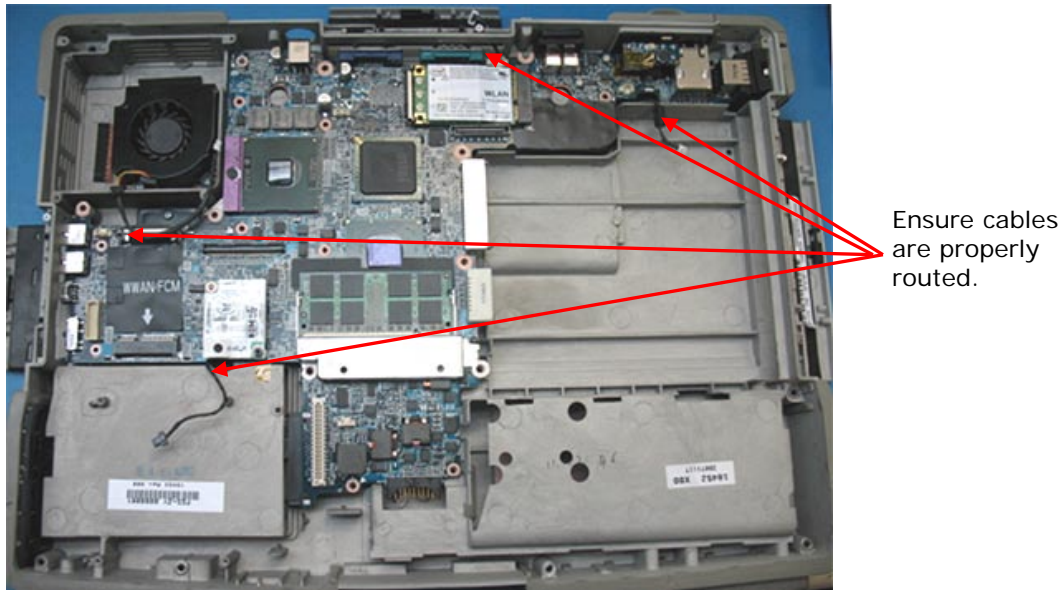
- d. Install these 3 gaskets from the original system board onto the new system board.

➡ **NOTICE:** When installing the system board, ensure that the fan cable antenna cables, and the 3 modem cables are clear of the system board before fitting it into the base, that the audio connectors are properly seated, and that the tab for the wireless switch fits properly into the detent on the slider mechanism before installing the system board into the base.



Wireless Switch


Once system board is partially seated, position the modem cables and the antenna cables by the RF passthru board so they are not pinched.




2. Complete the seating of the system board and again verify the cables are in the correct positions, and the 3 gaskets for the power port, rear USB port and side USB port are correctly positioned.
3. Secure the system board using the 4 M2.5 x 5-mm screws (labeled with silver triangles on the system board).
4. Reconnect the cables near the WLAN card and the modem connector to the system board.
5. Reconnect the fan cable to the system board.
6. Install the processor (see [Installing the Processor](#)).
7. Install the processor thermal-cooling assembly (see [Installing the Processor Thermal-Cooling Assembly](#)).
8. Install any smart cards or smart card blanks into the smart card slot.
9. Install the PC card reader (see [Installing the PC Card Reader Cage](#)).
10. Install the speaker (see [Installing the Speaker](#)).
11. Install any wireless communication cards (see [WWAN, FCM & SIM Cards](#), [Wireless Local Area Network \(WLAN\) Cards](#), [Internal Card with Bluetooth® Wireless Technology](#)).
12. Install the palm rest (see [Installing the Palm Rest](#)).
13. Install the memory module (see [Memory](#)).
14. Install any media bay devices (see [XBay Devices](#)).
15. Install the keyboard (see [Keyboards](#)).
16. Install the hinge cover (see [Installing the Hinge Cover](#)).
17. Install the HDD (see [Hard Drive](#)).

18. Insert the battery into the battery bay (see [Before Working Inside Your Computer](#)).

19. Connect the AC adapter to the computer and to an electrical outlet.

 **NOTICE:** Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

19. Turn on the computer.

 **NOTE:** After replacing the system board, use the CD that accompanied the replacement system board to enter the computer Service Tag into the BIOS.

20. Insert the CD that accompanied the replacement system board into the appropriate drive and flash the system BIOS (see [Flashing the BIOS](#)). Follow the instructions on the screen.


23 Flashing the BIOS

 **CAUTION:** Contact Dell Customer Support before attempting to flash the BIOS.

If a BIOS-update program CD is provided with the new system board, flash the BIOS from the CD. If you do not have a BIOS-update program CD, flash the BIOS from the hard drive.

23.1 Flashing the BIOS From a CD

1. Ensure that the AC adapter is plugged in and that the main battery is installed properly.

 **NOTE:** If you use a BIOS-update program CD to flash the BIOS, set up the computer to boot from a CD before inserting the CD.

2. Insert the BIOS-update program CD, and restart the computer.

Follow the instructions that appear on the screen. The computer continues to boot and updates the new BIOS. When the flash update is complete, the computer will automatically reboot.

3. Press **<F2>** during POST to enter the system setup program.

4. Press **<Alt>** and **<F>** to reset the computer defaults.

5. Press **<Esc>**, select **Save changes and reboot**, and press **<Enter>** to save configuration changes.

6. Remove the flash BIOS-update program CD from the drive and restart the computer.

23.2 Flashing the BIOS From the Hard Drive

1. Ensure that the AC adapter is plugged in, the main battery is properly installed, and a network cable is attached.

2. Turn on the computer.

3. Locate the latest BIOS update file for your computer at **support.dell.com**.
4. Click **Download Now** to download the file.
5. If the **Export Compliance Disclaimer** window appears, click **Yes, I Accept this Agreement**.

The **File Download** window appears.

6. Click **Save this program to disk** and then click **OK**.

The **Save In** window appears.

7. Click the down arrow to view the **Save In** menu, select **Desktop**, and then click **Save**.

The file downloads to your desktop.


8. Click **Close** if the **Download Complete** window appears.


The file icon appears on your desktop and is titled the same as the downloaded BIOS update file.

9. Double-click the file icon on the desktop and follow the instructions on the screen.


24 RF Passthru Board

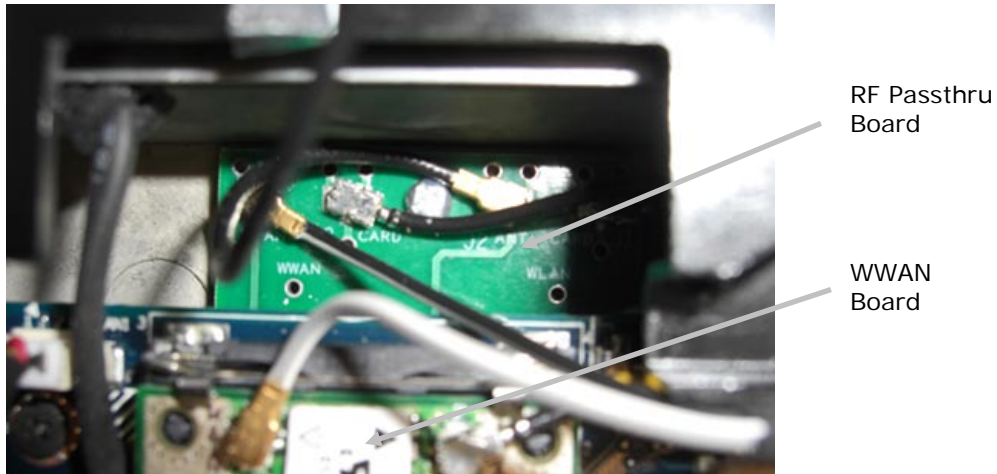
24.1 Removing the RF Passthru Board

 **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

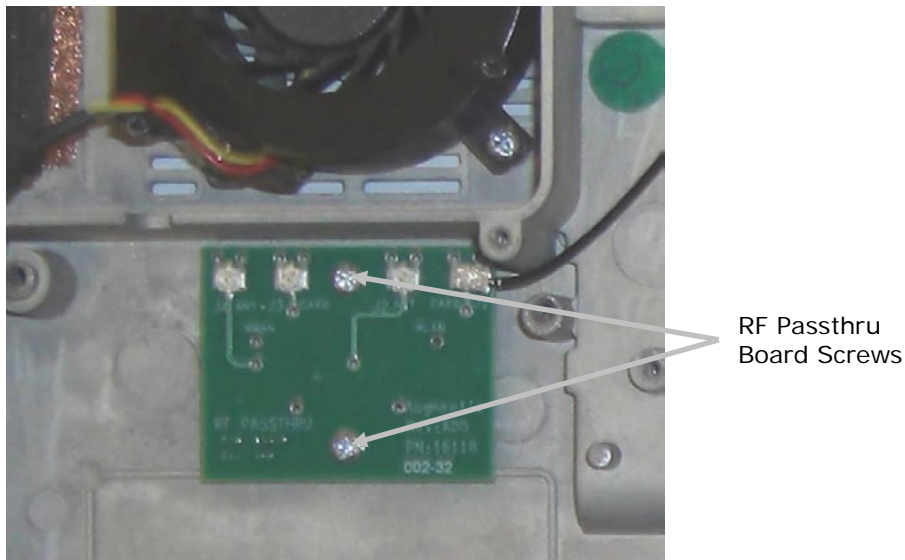
 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Remove the system board (see [Removing the System Board](#)).

 **NOTE:** When removing the system board, do not remove the system memory, processor thermal-cooling assembly or the processor.



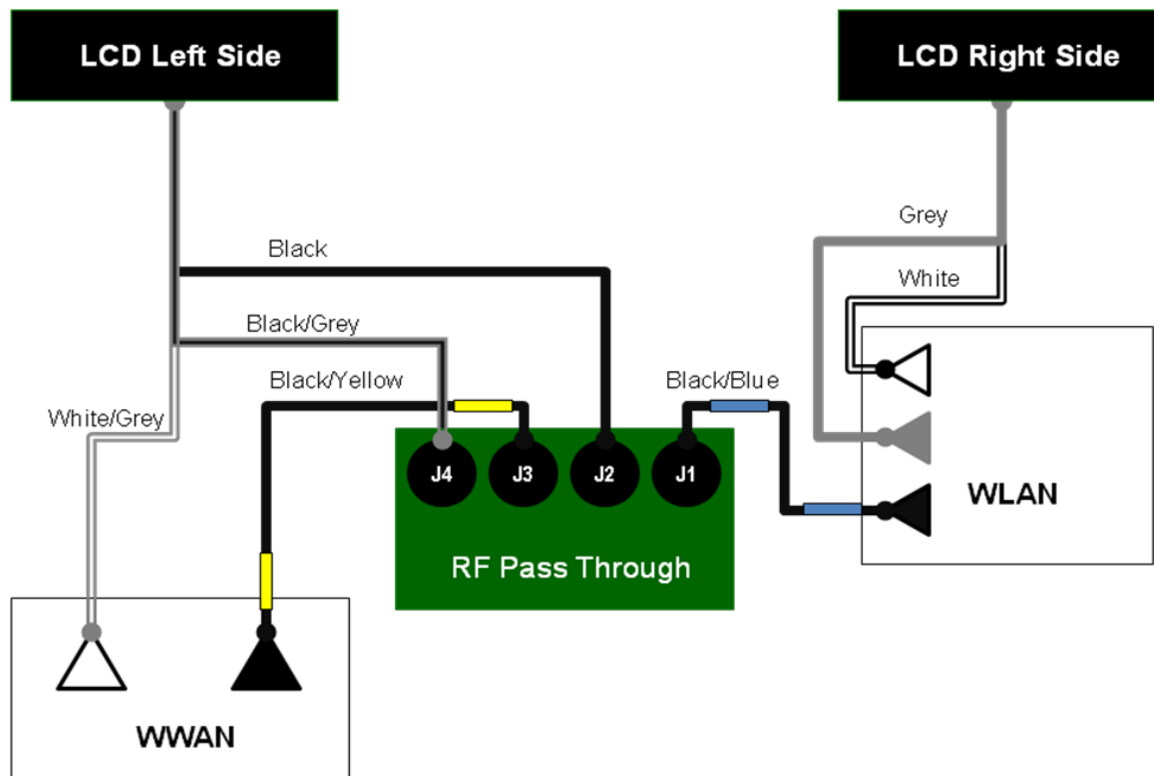
3. Remove the 2 screws from the base and lift the RF Passthru Board from the base. If the gasket is not attached to the bottom of the RF Passthru Board, remove the gasket from the base.



24.2 Installing the RF Passthru Board

NOTE: If a new RF Passthru Board is being installed, the replacement kit will include the RF Passthru Board, gasket, and 2 antenna cables.

1. Install the gasket to the bottom of the RF Passthru Board.
2. Attach the RF Passthru Board to the base using the 2 screws.



Wireless Block Diagram

3. Attach the 2 antenna cables. Refer to the antenna cable wiring diagram to ensure the antenna cables are properly attached.
4. Install the system board (see [Installing the System Board](#)).

25 Bottom Chassis

25.1 Removing the Bottom Chassis

CAUTION: Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).


1. Follow the instructions in [Before You Begin](#).
2. Remove the system board (see [Removing the System Board](#)).

NOTE: When removing the system board you do not need to remove the system memory or the processor.

3. Remove the fan (see [Removing the Fan](#)).
4. Remove the RF passthru board (see [Removing the RF Passthru Board](#)).
5. Remove the modem cable (see [Removing the Modem Cable](#)).


6. If your XFR D630 is equipped with the optional Touch Screen, remove the stylus, tether and clip (see [Stylus, Tether and Clip](#)).


25.2 Installing the Bottom Chassis

 **NOTE:** The replacement assembly will include the handle, all side and rear doors and all bottom doors except the HDD and battery doors.


1. Update the handle hardware. Install the stylus, tether and clip if previously removed. Install the shoulder strap anchors if previously removed.
2. Replace the modem cable (see [Installing the Modem Cable](#)).
3. Replace the RF passthru board (see [Installing the RF Passthru Board](#)).
4. Replace the fan (see [Installing the Fan](#)).
5. Replace the system board (see [Installing the System Board](#)).

25.3 Removing the Modem Cable


 **CAUTION:** Before working inside your computer, follow the safety instructions in the *XFR D630 Product Information Guide* and in the *XFR D630 User's Guide*.

 **NOTICE:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).

1. Follow the instructions in [Before You Begin](#).
2. Remove the system board (see [Removing the System Board](#)).

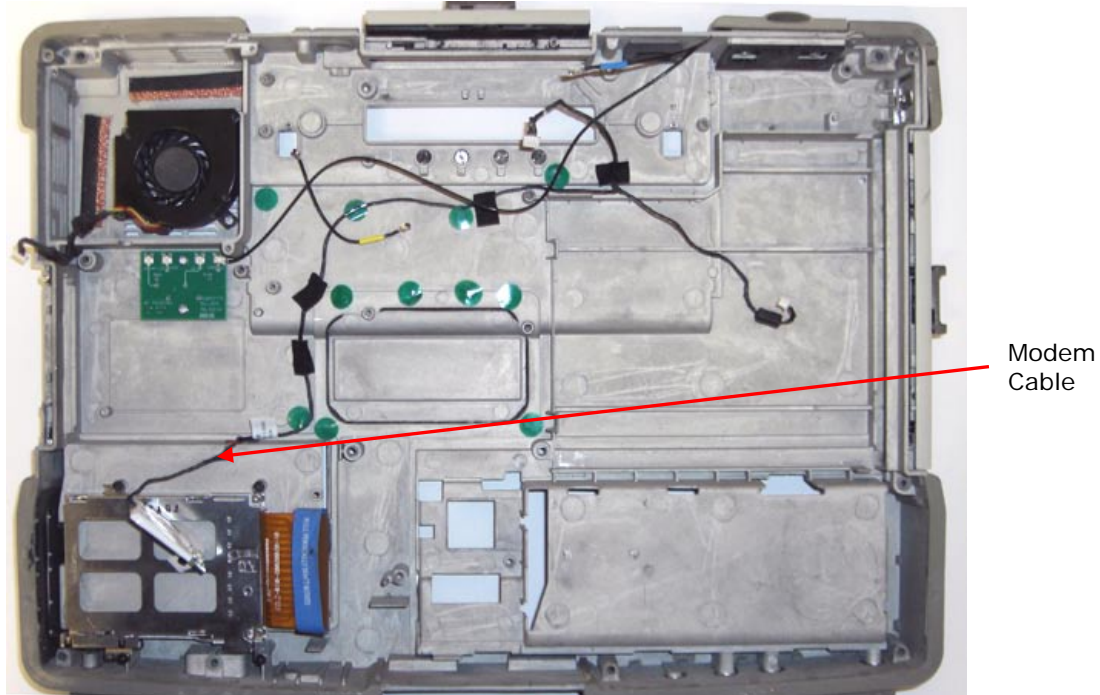
 **NOTE:** When removing the system board you do not need to remove the system memory or the processor.

3. Remove the modem cable (see [Removing the Modem Cable](#)).

 **NOTE:** When removing the modem cable, remove the tape used to attach the modem cable to the base as it will be reused for the new cable.

25.4 Installing the Modem Cable

1. Install the new modem cable. Refer to the figure below to see the proper cable routing and where to secure the cable to the base using the tape saved when removing the modem cable.



2. Replace the system board (see [Installing the System Board](#)).